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Birds

The MIGRANT

A QUARTERLY JOURNAL DEVOTED TO

BIRDS OF TENNESSEE

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THE MIGRANT

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VOL. 21 MARCH, 1950 No. 1

GEESE ON HIWASSEE ISLAND

By DALE WILLIAM YAMBERT

Prior to the late 1800's the Tennessee River system furnished a bountiful wintering-ground for waterfowl which came into the area during fall migration from the Mississippi Valley. Since the Tennessee River maintains roughly an east-west route, it served as a diversion channel for birds traveling between the Mississippi basin and the coastal areas of the Southeast.

As the Tennessee Valley became more thickly settled, the amount of hunting in this area became greater, and more important, the waterfowl food supply was diminished by the general practice of pasturing cattle and hogs in the crop lands following harvest. The combination of these decimating factors resulted in continually decreasing numbers of waterfowl wintering in the valley. This decline continued into the 1930's.

Following the establishment of the TVA in 1933, much of the land bordering mainstream reservoirs was removed from private hands. Altho hunting was not prohibited on all such land, the fact that crop lands were no longer so completely cleaned by the harvest-cattle-hog cycle created numerous feeding places for geese and ducks along the river, somewhat less hazardous than in previous times.

The strategic location of refuges makes it possible to obtain maximum beneficial results for wildlife at a minimum of cost and labor and with a minimum size and number of the refugee areas. Accordingly the State of Tennessee entered into contract agreement with the TVA whereby TVA would create refuge areas scattered throughout the valley, which would be maintained, planted, and patrolled by State personnel.

To date refuges have been set aside on 115,000 acres of reservoir lands through the cooperative action of the state conservation departments, U. S. Fish and Wildlife Service, and TVA. As a result of this, movements of waterfowl through the valley are increasing.

In addition to their use as available feeding and resting places for migrating geese, these refuges, if properly developed to their full capacity, will in the very near future be able to support much of the waterfowl population that has up till now been wintering on the fast-deteriorating southern coastal marshes.

One of the refuges, established on January 10, 1940, is the Hiwassee Island Game Refuge. Hiwassee Island, known locally as Benham's Island or Big Island, is a 200-acre delta formation located at the junction of the

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Hiwassee and Tennessee Rivers near Dayton, Tennessee. In addition to the island proper, the refuge includes nearly 7,500 acres of land and water, which serve as buffer areas to supplement use of the island itself. These lands comprise stretches of water and shoreland extending approximately two miles along the three channels radiating from the island, along the Tennessee and Hiwassee Rivers.

Before the establishment of the State Game Refuge, TVA had done some experimental tree plantings on the island. These thirteen-year-old plantations of Loblolly and Shortleaf Pine now afford excellent cover and windbreaks on the flat island which is practically devoid of any other woody cover.

Under the terms originally establishing the refuge, the island was to be farmed by tenants on a share crop basis. Due to the presence of canals, occasional Indian mounds, and scattered tree and brush stands, only about 160 acres of the total 200 are tillable. As rental for his agricultural use of the land the tenant left a portion of his plantings—crops suitable as food for geese—unharvested. An example: for the 1948-49 wintering season there were left twenty acres of milo maize, forty acres of soy beans, and twenty acres of barley. The activities of the tenant farming the island are limited to agricultural rights. No one is permitted to live on the island; no hunting or trapping are allowed and the grazing of any livestock is forbidden.

During the 1940-41 season, eighteen Canada geese wintered on the refuge. Each succeeding year the goose population has nearly doubled until the past winter of 1949-50, when censuses of the island yielded a total population estimate of nearly 5,000 geese.

In spite of the establishment of buffer areas on the nearby mainland, the main bulk of the winter flock use the island for both feeding and roosting. Daylight excursions of small flocks can be seen leaving the island, but there is no general exodus of the entire flock to outside grazing lands in the morning and a return to the refuge at night as is generally the case on the smaller refuges in the Northern States.

In its present state of food production the island has reached its carrying capacity as evidenced by the fact that the geese have eaten nearly 100 percent of the available food during their winter stay.

The passage of the Pittman-Robertson Bill, in 1949, furnishing Federal aid to state wildlife restoration projects, has made it possible for the State to take over the operation of the refuge, and to maintain a full time project assistant on the area, and to abandon the tenant farming system. Managed solely for the purpose of waterfowl food production, the refuge can be operated more efficiently. Crops of lesser food value will be eliminated, and extensive areas now occupied by a stand of worthless sedge grass will be sown to a permanent stand of rye grass, valuable to the geese for grazing. Through this more intensive program of food production the island may expected to support 10,000 birds through a normal winter. In all probability this population will be reached within two more years.

Future policy to be followed in the administration of this and other refuges is as yet undecided. On condition that a peak has been reached in the fluctuating waterfowl population, these refuges of the Tennessee Valley system may be considered sufficient. If, however, this concentration of geese continues to increase at the same rate it has over the past decade, these refuges cannot be expected to support permanently such numbers of geese. If this latter condition proves true, any excess numbers of geese must either be attracted to other refuges or the people of the State must be allowed to harvest them by hunting. While this practice may seem at first to be directly opposed to conservation ethics, actually a much higher total population can be maintained if excess birds are removed from the flock. On the other hand, if the valley becomes filled by an ever increasing population of wintering geese, the feeding areas will soon be destroyed by over use, as has happened to the formerly used wintering grounds of the southern Atlantic and the Gulf coasts.
FOUNTAIN CITY, TENN.

THE FALL MIGRATION IN THE TENNESSEE RIVER IN ALABAMA

By HENRY M. STEVENSON AND THOMAS A. IMHOF

In several trips to the Tennessee River Valley in the late summer and fall months the writers have been impressed by certain features of the fall migration there. In the belief that observers at other points on this river may be interested in comparing our experiences with their own, these data are presented.

Stevenson has made field trips at Florence intermittently from August to December, 1940; in early September, 1949; and in early July, 1949. He has also worked at Decatur in early September, 1943; and at Guntersville in late June and on October 26 and 27, 1948. Imhof spent an entire day in the field around Decatur on August 29, 1949, compiling a list of 87 species, and made other trips there on November 9, 1948, and October 15, 1949. His five years of experience with shore birds on Long Island well qualify him for the unusual observations reported in this paper.

Certain contrasts with the fall migration in other parts of the South are strikingly apparent. Not only is this true of the waterfowl and shore birds—which are attracted by the abundance of suitable habitat and benefit from the sanctuary offered by the Wheeler National Wildlife Refuge—but some other transients as well. Swallows, Swifts, and Nighthawks are regularly abundant around September 1, not sporadically as in other localities. Gulls and terns may also be numerous on occasions. By contrast, most warblers, vireos, thrushes, and many other arboreal transients seem less frequent than in other parts of north Alabama, even in well wooded habitats.

In some cases, when the direction of flights could be determined, it was noted that each species traveled invariably in a given direction, which was often just opposite to the direction followed by some other species. Inasmuch as the Tennessee River flows chiefly in a westward direction through Alabama, species following it flew either east or west, rather than south, at these points.

The following list by no means contains all species recorded in fall at these localities, but includes the most interesting or unusual transients. The White-eyed Vireo (**Vireo griseus**) and the Yellow-throat (**Geothlypis trichas**), although very abundant on the river banks in late summer, are omitted because they seem almost as common there at the height of the breeding season.

Annotated List

Pied-billed Grebe (**Podilymbus podiceps**). Five seen at Decatur, August 29, 1949, may have been early fall transients, although the breeding of the species there is not unlikely.

Double-crested Cormorant (**Phalacrocorax auritus**). At Decatur on an overcast day, October 15, 1949, eighty birds were counted, and all of those in the group flight were going upstream.

American Bittern (**Botaurus lentiginosus**). One seen at Decatur, August 29, 1949, may have been an early fall transient, as the species is not known to breed in Alabama.

Canada Goose (**Branta canadensis**). On October 15, 1949, at Decatur, a flock of twenty-nine was heard and then seen dropping in from the overcast. From all indications they had been flying due south. They were apparently among the first geese to reach Wheeler Refuge that fall. On November 9, 1948, more than 300 were seen on the south bank of the Tennessee River.

Snow Goose (**Chen hyperborea**). About forty of these "wavies" were seen among the other geese at the Wheeler Refuge on November 9, 1948. Refuge personnel say that this and the next species stop there regularly each fall and that they have been seen arriving out of the northeast.

Blue Goose (**Chen caerulescens**). With the Snow Geese mentioned above, 25 of the present species were noted.

Black Duck (**Anas rubripes**). The earliest arrivals in fall were forty recorded at Decatur, October 15, 1949, and others at Guntersville, October 27, 1945.

Pintail (**Anas acuta**). At Decatur, on October 15, 1949, 97 birds were counted, and on November 9, 1948, about 225 were estimated to be present.

Green-winged Teal (**Anas carolinensis**). At Wheeler Refuge four seen on October 15, 1949; and on November 9, 1948, there were ten. Evidently this bird is not so common as other tip-up ducks in the Tennessee Valley in fall.

Blue-winged Teal (**Anas discors**). At least forty-seven were counted at Decatur, August 29, 1949—a surprisingly large number on so early a date. About twenty were still present on October 15.

Baldpate (**Mareca americana**). Early arrivals were seen at Decatur, October 15, 1949 (22), and Guntersville, October 27, 1945 (2).

Shoveller (**Spatula clypeata**). Two birds at Wheeler Refuge, October 15, 1949, are the only ones we have seen in the Valley in fall.

Lesser Scaup (**Aythya affinis**). A flock of eleven at Decatur, October 15, 1949, constitutes the earliest known arrival date for Alabama.

Cooper's Hawk (**Accipiter cooperii**). Three were seen flying upstream together near Decatur, apparently in migration, October 15, 1949.

Marsh Hawk (**Circus cyaneus hudsonius**). One was seen with the Cooper's Hawks mentioned above.

Osprey (**Pandion haliaetus**). Single individuals, probably migrating, have been seen at Florence, September 6, 1948; and at Decatur, September 2, 1943, and October 15, 1949.

Sora (**Porzana carolina**). One was recorded at Florence, August 28, 1940. Near Decatur three were seen on September 2, 1943, and one on October 15, 1949.

Semipalmated Plover (**Charadrius hiaticula**). The only records are near Decatur: four on September 2, 1943, and fifteen on August 29, 1949.

Black-bellied Plover (**Squatarola squatarola**). Twenty-two were seen in one slough at Wheeler Refuge, October 15, 1949. This is one of a very few records for the interior of Alabama. All field marks were noted —typical plover shape and actions, conspicuous white areas in wings and tail, and typical "quee-er-ee" call note.

Spotted Sandpiper (**Actitis macularia**). Although not especially common, this species was seen in small numbers on most of the trips in August and early September.

Solitary Sandpiper (**Tringa solitaria**). Status similar to that of the Spotted Sandpiper.

Greater Yellow-legs (**Totanus melanoleucus**). Our only records are near Decatur in 1949: eleven on August 29, and twelve on October 15.

Lesser Yellow-legs (**Totanus melanotos**). Although irregular and occurring in small numbers around Florence, this species appears to be common in the fall at Decatur. On August 29, 1949, 105 were counted, with a single flock containing 80 individuals. Fifteen were found on October 15, 1949, and three on November 9, 1948.

American Knot (**Chalidris canutus**). Three seen by Imhof at Decatur, August 29, 1949, are without precedent in the interior of Alabama. These birds were rather large (size of Killdeer), with a color pattern very similar to the Semipalmated Sandpiper's, except for a small amount of white at the base of the tail. They were rather heavy-set, silent birds with medium-sized bills.

Least Sandpiper (**Pisobia minutilla**). A rather common fall transient in August and September. At least forty were present around Decatur on August 29, 1949, and a smaller number on other trips there and at Florence. Three seen at Florence, December 22, 1942, were probably wintering, and the same may apply to a flock of sixteen at Decatur, November 9, 1948.

Red-backed Sandpiper (**Erolia alpina**). Not only the earliest record for the State, but the only inland record for Alabama, is that of ten seen by

Imhof at Wheeler Refuge, October 15, 1949. These birds, seen in three different places, were easily identified by their typical lead-gray color, slight droop to the bill, and very characteristic call note.

Pectoral Sandpiper **(Pisobia melanotos)**. One of the latest and most common of the shore birds in this region. Our earliest date is August 20, at Decatur. The greatest numbers listed were on Decatur field trips: twenty-seven on September 2, 1943, and ten on August 29, 1949. Late birds were seen at Florence, October 5, 1940; Decatur, October 15, 1949 (2); and Guntersville, October 27, 1945.

Dowitcher **(Limnodromus griseus)**. Our only record is that of eight found near Decatur, August 29, 1949. (Other records in the interior of Alabama are at Leighton and near Birmingham).

Stilt Sandpiper **(Micropalama himantopus)**. Two were seen near Decatur, August 29, 1949, and contrasted in the field with both species of Yellow-legs. The only other Alabama record also comes from the Tennessee River Valley—four seen by F. W. McCormack at Leighton, August 17 to September 6, 1892 (Howell, **Birds of Alabama**, p. 98).

Semipalmated Sandpiper **(Ereunetes pusillus)**. Considering the usual scarcity of this species in the interior, it is surprising that as many as seventy-five should have been found at Decatur, August 29, 1949. Another was seen there on September 1, 1943, and fifteen on October 15, 1949.

Western Sandpiper **(Ereunetes maurii)**. Two seen at Decatur on August 29, 1949, constitute the only inland occurrence in the State except at Birmingham.

Sanderling **(Crocethia alba)**. The record of two seen near Decatur, August 29, 1949, and six on October 15, 1949, are among the few for the interior of Alabama.

Avocet **(Recurvirostra americana)**. The only record for the State is that of a bird seen by Imhof on White Springs Slough in the Wheeler National Wildlife Refuge near Decatur, October 15, 1949. This bird was collected on October 22 by Lawrence Givens, Refuge Manager and the skin will be sent to the U. S. National Museum.

Ring-tailed Gull **(Larus delawarensis)**. Very early arrivals were seen at Decatur, August 29, 1949 (2-; and near Florence, September 6, 1948.

Common Tern **(Sterna hirundo)**. Among forty or more white terns seen flying dowinstream near Florence, September 6, 1948, at least eight proved to be of this species, others being too distant for positive identification. There are few other records for the interior of the State.

Least Tern **(Sterna albifrons)**. One of the few records for the interior of Alabama is that of one seen at Decatur, September 1, 1943.

Black Tern **(Chlidonias nigra)**. Apparently irregular, but common at times. Found in good numbers at Florence, September 6, 1948 (17), and near Decatur, August 29, 1949 (35). Single birds were seen at the latter station on September 1 and 2, 1943. Like the other terns and gulls, these birds were flying downstream (westward).

Nighthawk **(Chordeiles minor)**. The migration of this species is one of the spectacles of the late summer months in the Tennessee Valley—at least at Florence. The numbers increase in August, and large flights may be seen by early September. Our latest record is of three near Florence, September 21, 1940, although the species has been recorded as late as October 8 at Leighton (Howell, **Birds of Alabama,** p. 180). Along the Tennessee River ten miles west of Florence at least 220 were counted in several loose flocks on the afternoon of September 6, 1948, the first flock containing approximately seventy individuals. Without exception these birds flew upstream (eastward), although flocks seen the next day several miles north of the River flew directly toward it.

Chimney Swift **(Chaetura pelagica).** Although not recorded in extremely large numbers, this species was often seen flying upstream, occasionally associated with flocks of Cliff Swallows. At Central, however (several miles north of the Tennessee River), a flock of about 20 was flying due north on September 7, 1948.

Ruby-throated Hummingbird **(Archilochus colubris).** Hummingbirds are noticeably more frequent along the Tennessee River banks than elsewhere, and seem to migrating there, although the direction was not determined conclusively in most cases. Four birds observed on August 29, 1949, at Decatur, were going downstream. The migration has been detected at Florence as early as July 9 (possibly June 27 at Guntersville) and lasts at least until October 5. The numbers are small, not more than nine having been seen on a single field trip. On September 1, 1943, at least eight were seen on an island in the Tennessee River at Decatur, where trees were few and small, and only eleven other species of land birds were recorded.

Eastern Kingbird **(Tyrannus tyrannus).** Occasionally seen in migrating flocks in late August and early September. The number of individuals were small except for two occasions: twenty near Florence, September 6, 1948; and sixty at Decatur, August 29, 1948. On the latter date the species was migrating downstream, one flock numbering forty-nine individuals.

? Flycatcher **(Empidonax** sp.?). Small flycatchers of one or more species are seen in fair numbers in the Tennessee Valley in fall. One seen on an island in the River at Decatur, September 1, 1943, showed the typical markings and behavior of the Least Flycatcher **(E. minimus),** but since it was silent and not collected, its identity remains in question.

Tree Swallow **(Iridoprocne bicolor).** Occasionally seen in considerable numbers, the highest estimates being eighty-five at Decatur, August 29, 1949, and fifty at Florence, August 26, 1940. About twenty-five seen at Florence, September 5, 1948, along with three other species of swallows (Bank, Rough-winged. Barn), were flying downstream (westward) even though a wind of more than twenty miles per hour blew from the southwest.

Bank Swallow **(Riparia riparia).** Although 155 were recorded at Decatur, August 29, 1949, Bank Swallows have not otherwise been found in large numbers. The direction of flight is westward, but perhaps not invariably.

Rough-winged Swallow **(Stelgidopteryx ruficollis).** Definitely the most abundant swallow in August, but seen in only small numbers in early September. About 600 were listed at Decatur, August 29, 1949; and over forty on a trip of one and one-half hours at Florence, August 19, 1940. Apparently some of the birds fly upstream, others downstream. Fourteen were seen migrating at Florence as early as July 1, 1940.

Barn Swallow **(Hirundo rustica).** Probably the most regular of the transient swallows, as it is seldom missed on a field trip in late August or early September. Some have been recorded as flying westward, but in other cases the direction of flight was undetermined. Large numbers (about 100) were seen only at Decatur, August 29, 1949.

Cliff Swallow **(Petrochelidon pyrrhonota).** Irregular, but common on two occasions—thirty seen near Florence, September 6, 1948, when many unidentified swallows were probably of the same species; and seventy at Decatur, August 29, 1949. The direction of its migration was invarably eastward. Although it may be merely coincidental, four species of swallows were seen flying westward in mixed flocks on September 5, 1948, and Martins were also present, but no Cliff Swallows were seen that day.

Purple Martin **(Progne subis).** One of the least common of the swallows in late August and early September, Martins are probably more common transients earlier in the summer. Small numbers were migrating near Florence on July 9 and 11, 1949, those on the former date flying upstream.

Long-billed Marsh Wren **(Telmatodytes palustris).** An early fall transient was seen at Decatur, August 29, 1949. This appears to be the only fall record for the Tennessee Valley in recent years, which is rather strange in view of the spring records at Florence. Probably it is to be correlated with the scarcity of sedges and cattails.

Short-billed Marsh Wren **(Cistothorus platensis).** Early fall arrivals were recorded at Decatur, August 29, 1949, and September 2, 1943 (4); and at Florence, September 7, 1948.

Blue--gray Gnatcatcher **(Polioptila caerulea).** Fair numbers may be seen in migration along the Tennessee River in late summer. There is some evidence that the migration begins in early July, if not late June, but the presence of breeding birds makes this point difficult to determine. The greatest numbers were recorded near Florence, September 6, 1948 (17), and near Decatur, September 2, 1943 (12).

American Pipit **(Anthus spinoletta).** The earliest known record for the state is that of three seen near Decatur, October 15, 1949. On November 9, 1948, twenty-two were present.

Black and White Warbler **(Mniotilta varia).** Fair numbers may be seen in wooded places along the Tennessee River in any late summer month. At Guntersville one was seen in a small flock of mixed transients as early as June 27, 1945, and several were migrating along the Tennessee River near Florence, July 9, 1949.

Tennessee Warbler **(Vermivora peregina).** One seen at Decatur, August 29, 1949, constitutes the earliest fall arrival for the State. Another, on October 27, 1945, at Guntersville, is the latest record for the Tennessee Valley.

Nashville Warbler **(Vermivora ruficapilla).** One seen at Florence on October 5, 1940, is among the few ever seen in Alabama.

Parula Warbler **(Parula americana).** Small numbers apparently follow the Tennessee River in migration, beginning as early as late June (June 27, 1945, at Guntersville). Four was the largest number recorded on a single field trip.

Yellow Warbler **(Dendroica petechia).** Although seldom recorded after mid-August, the present species proved abundant on one occasion when seventeen were counted in two hours of field work on a small island in the Tennessee River at Decatur, September 1, 1943. They not only frequented the small willow trees, but flitted in the mallows and buttonbushes, steadily working in a downstream (westward) direction.

Magnolia Warbler **(Dendroica magnolia).** Apparently not very common although we have too little data for late fall. Early arrivals were noted at Decatur, September 2, 1943, and Florence, September 5, 1948.

Prairie Warbler **(Dendroica discolor).** Early fall migrants were seen at Guntersville, June 27, 1945, and Florence, July 9, 1949, apparently following the Tennessee River banks on each date.

Northern Water-Thrush **(Seiurus noveboracensis).** Frequently seen in late summer along the banks of the Tennessee River. On the island at Decatur, referred to above, at least three were present on September 1, 1943, although there was little cover except herbs and low bushes.

Louisiana Water-Thrush **(Seiurus motacilla).** Some of the Water-Thrushes seen in late summer on the banks of the Tennessee River were too elusive for specific identification. One seen at Florence on September 6, 1948, proved to be this species, and it seems likely that some others were also.

Wilson's Warbler **(Wilsonia pusilla).** In view of the rarity of this species in Alabama, it seems well to mention one seen near Florence, September 6, 1948.

Orchard Oriole **(Icterus spurius).** An exceptionally late individual was recorded at Florence, August 26, 1940.

Baltimore Oriole **(Icterus galbula).** A female seen at Decatur, August 29, 1949, represents an early date of arrival.

Dickcissel **(Spiza americana).** A common summer resident in many parts of the Tennessee Valley. Three very late individuals were seen at Florence, October 5, 1940. The latest record known for Decatur is of one bird seen on August 29, 1949.

Grasshopper Sparrow **(Ammodramus savannarum).** One seen at Florence on October 5, 1940, was unusually late.

DEPARTMENT OF ZOOLOGY, FLORIDA STATE UNIVERSITY,
TALLAHASSEE, FLA.
307 38TH STREET, FAIRFIELD, ALABAMA.

THE ROUND TABLE

AMERICAN EGRET IN TENNESSEE IN FEBRUARY—On February 18, 1950, I was looking for ducks in the Forked Deer River bottoms, on the land of the West Tennessee Experiment Station near Jackson, Tennessee. I saw a large white bird in a shallow pool and identified it as an American Egret. When I approached closer it flew up and then further into the bottoms. The Egret was probably looking for frogs which were singing at this time.—KILIAN ROEVER, Jackson, Tenn.

BROAD-WINGED HAWKS OVER HUMP MOUNTAIN — Persistent trips to Hump Mountain on the Tennessee-Carolina border, eighteen air miles southeast of Elizabethton, for observation of hawk migration, begun in the fall of 1944 and continued each year since, was rewarded with some measure of success on September 24, 1949. At about 3 o'clock on that day, a few minutes after having reached the summit of Hump (5587 ft), I spotted horizontally in front of me a sizeable group of large birds. With the aid of binoculars, they were readily identified as Broad-winged Hawks, and a total of nineteen were counted. Glancing sideways, I saw above the precipitate north slope six more flying in the same direction as the others. Intent on detecting additional ones, I turned to reach the highest elevation of the summit and have a more advantageous view of the surroundings when, along the south slope, even greater numbers of Broad-winged Hawks appeared. Above Bradley Gap, which separates Hump Mountain from Yellow Mountain and Big Ridge to the Southwest, they began circling and spiraling upward to considerable height and then soared speedily in the direction those seen earlier had taken, southwest towards Roan Mountain. Owing to their wheeling and intermingling movements when they were closest to my vantage point, there was some difficulty in counting all the birds, but on the basis of the count made as best as possible I am confident there were not less than thirty in this group. A few minutes later another four were observed soaring along the north slope of Hump Mountain. The total of approximately sixty is the largest aggregation of hawks so far observed on Hump Mountain, and it is of interest that no Broad-winged were seen before among those appearing fairly regularly over Hump Mountain in fall migration (Red-tailed, Cooper's, Sharp-shinned, Sparrow, Marsh Hawks).

When starting on the trip, two young friends, Earl Hagie and Finley Caraway, who live above Elk Park, in the shadow of Hump Mountain so to say, greeted me with the information that immediately following a spell of cold rain accompanied by strong winds earlier in the week, they had observed more hawks than ever before. The former stated he had counted seven on September 21 and ten on the 22nd. The latter had seen approximately thirty-five about the summit of Hump Mountain on September 21 while he was on his way into Horse Creek Valley.

My own observations on the ascent from the tree line to the bare summit of Hump were disappointing in that only one adult Red-tailed

Hawk was in evidence on the north slope just below the summit. It was probably the same one seen later, the red of its tail beautifully contrasting with the deep blue of the sky. At lower altitudes on the ascent up to the tree line, one each of Cooper's, Sharp-shinned, and immature Red-tailed Hawk were observed, and from rather far away two unidentified either Buteos or Marsh Hawks, to judge from size, were seen chasing one another over the open spaces below the summit of Hump; a smaller hawk, possibly Sharp-shinned, flew close above them.

Of small birds of interest, one Western Palm Warbler was observed at 5550 ft. immediately west of the summit of Hump Mountain, intermittently on the grassy ground, on rocks, and clinging to sneeze weed. Another Western Palm Warbler and a Pipit were seen east of the summit at 5200 ft.—FRED W. BEHREND, Elizabethton, Tenn.

NOTE.—A letter from Mr. Bruce P. Tyler, Johnson City, describes an observation of a flight of hawks made by him and Mr. Robert Lyle. He writes that on September 24, 1949, they were at the northeasterly end of Unaka Mountain when they saw a flock of about twenty-five hawks settle into the ravine to the west as if escaping from the rather high wind; there were four Sharp-shins in the group and the rest appeared to be mostly Red-shouldered Hawks.—Ed.

RED-BACKED SANDPIPERS ON MIGRATION THROUGH EAST TENNESSEE AND WESTERN PART OF VIRGINIA.—Looking down from Roan Creek Bridge at the shallow northeast end of Watauga Lake in Johnson County, while on an early morning trip to the Lake on October 27, 1949, I observed on the muddy rock-strewn bank, in company of Killdeer and Greater Yellow-legs, five Sandpipers of better than medium size whose bill, compared to the size of the bird, appeared disportionately long and slightly curved. It certainly was a species different from the Sandpipers ordinarily seen hereabouts. Their appearance corresponded to the illustration of the Red-backed Sandpiper in winter plumage as shown in Peterson's "Field Guide". Upon my returning to the bridge from a drive along the Lake, these shorebirds were still present. I worked my way down to a weed patch near the creek bank, thus obtaining a closer view, and there could be no doubt that the earlier assumption of the Sandpipers being the Red-backed species was correct.

On the afternoon of the following day, Stephen M. Russell of Abingdon, Virginia, and I visited the mud flats at Saltville, Virginia, and there, with Pectoral Sandpipers, Greater and Lesser Yellow Legs, and Killdeers, we observed nine Red-backed Sandpipers, identical in appearance to those seen by me the day before. Published records of this species in Tennessee appear to be scarce,[1] and it would be interesting to know more about its occurrence in this State or adjacent states. Messrs. Burt L. Monroe, Sr., and Burt L. Monroe, Jr., in the November 1949 issue of the KENTUCKY WARBLER call attention to the observation at the Falls of the Ohio, Louisville, on October 19, 1946, of about 25 Red-backed Sandpipers and to Dr. Gordon Wilson's records at another locality in Kentucky in spring of the middle and late 30's and 1948.—FRED W. BEHREND, Elizabethton, Tenn.

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[1] There are three previously published records in THE MIGRANT for the Red-backed Sandpiper in Tennessee, one each for Knoxville, Memphis, and Nashville.—Ed.

CORRECTION.—Mr. Harry C. Monk of Nashville has called to my attention that the White Ibis record published by Isabel Tipton and I (see MIGRANT, 1949, pp. 50-51) is the second record for Tennessee instead of the first. The first record was published by Mr. Franklin McCamey (MIGRANT, 1935, p. 68) of a single adult seen near Memphis on September 2, 1935.—J. C. HOWELL, Knoxville, Tenn.

THE SEASON

MEMPHIS AREA — The White-throated Sparrow arrived at Coffey Grounds the same date as last year, Oct. 13, along with the Golden-crowned Kinglet. Oliver Irwin also reported it that date, together with the Ruby-crowned Kinglet, Winter Wren, and Hermit Thrush. Earlier he found a Towhee near Bartlett, Oct. 6, and Phoebe and Myrtle Warbler on Oct. 12; then on the 15th the Junco. The following transients of interest were recorded by him: Blue-headed Vireo, one on Oct. 13; Oven-bird, Oct. 5; Black-crowned Night Heron, Oct. 7; small flock of ducks and geese on Oct. 12. On Sept. 30, a Whip-poor-will was flushed at Coffey Grounds. John O'Callaghan reported a Screech Owl back at his boxes on Oct. 14; on Mar. 5 he found that one of this species was the bird banded there Feb. 28, 1948, while another Screech Owl found in a box the day before was previously unbanded. On Oct. 9 a Sharp-shinned Hawk was seen from a downtown swift banding chimney while Howard and Evelyn Barbig reported a Pigeon Hawk (rare) Jan 8 at Bartlett. The first Ring-billed Gull was seen Sept. 16 (very early) but the species failed to appear in numbers until December. . . . The three Christmas Counts in this area produced generally average results; the weather was overcast for the Memphis count and rainy for Moon Lake, Miss., and some bottomlands flooded at both places. The Red-breasted Nuthatch appeared on all three lists,—2 being seen near Moon Lake. (Another in town, Mar. 14, Irwin). We failed to find a Least Sandpiper at the Tupelo, Miss., Fish Hatchery where the species was recorded on 1947 and 1948 lists (and Memphis 1946). Wilson's Snipe was also absent from the Hatchery while duck results on the Tombigbee State Park lake were disappointing and no vulture flock was seen there as in 1947 and 1948. A male Black and White Warbler feeding along and near the leaf litter was seen at the west edge of the Park (December 24) and is the second winter record for the Mid-South (previously at Memphis, Dec. 20, 21, and 23, 1941; see 1942: page 22 and back cover). Demett Smith also found a House Wren there (three

Pine Warblers were inadvertently omitted from the count as sent in to Audubon Field Notes). On the Memphis count Demett Smith recorded a Chipping Sparrow, rare at this season. The usual Count at Hickory Flats, Miss., was not made this year but Mrs. Floy Barefield reported 8 Brown-headed Nuthatches there Dec. 24.

It rained practically all January and on the 5th froze as it touched objects. Tree limbs cracked for about 30 hours. Roosting places were coated and bent to the ground and as a result some local decreases in birds were noted. A Barn Owl was pictured in a local newspaper, frozen to a wire, while some mockingbirds and others lost their tails by being frozen to a perch. Irwin found a Woodcock at separate locations in Forest Hill Cemetery on Jan. 28 and Mar. 1. Wilson's Snipe numbered up to 100 at the Lakeview "highway pit" in February, probably because all bottomlands were flooded. On the evening of Feb. 25 we heard a small flock of Blue and Snow Geese moving north over the city. Purple Martins were reported at the last of February, altho on Mar. 13 none had arrived as the boxes of some of our members. The next arrivals included shore birds. On Mar. 11 Demett Smith and Floy Barefield found 86 Goldens at the Penal Farm, east of town, 25 on the 12th and 75 on the 14th. On Mar. 12 the Coffeys found 18 Golden Plovers and also 25 Pectoral Sandpipers, at Field 21, north of town. Demett also recorded an Upland Plover on his visit of the 12th which is three days ahead of our earliest previous record; a Western Meadowlark on the 11th and two there on the 12th (second West Tennessee record), Victor Julia found a Mourning Dove nest with one egg in Overton Park on Mar. 11; Irwin noted a Cooper's Hawk placing a stick on its nest in Forest Hill on the 14th.

R. D. Smith found a flock of 160 Golden Plover on March 18 at Lakeview, Mississippi, and other and smaller flocks were found on the same and next day. Upland Plovers were also observed on these days. Eight Least Sandpipers were recorded very early, on March 11 at the Penal Farm by R. D. Smith.—BEN B. COFFEY, JR., Memphis.

KNOXVILLE — The winter months were far warmer than usual, with no snow persisting on the ground more than a few hours and no prolonged freezing weather. March, in contrast, has been cool. There have been no unusual numbers of any species except for a few ducks, Shovellers, Redheads, and Buffleheads. Scarceness of some birds has been notable; Myrtle Warblers, Pipits, and Purple Finches have been few in number compared with previous years. There have been no records of wintering Catbirds or Brown Thrashers since December 4. Pine Siskins were absent this year altho they have been seen in fair numbers in the Great Smoky Mountains. Red-breasted Nuthatches were much more common than usual in the Fall and early Winter around Knoxville, but their numbers decreased in January and February. Robins, on the other hand, were scarce until mid-January when they became relatively common. Some arrival dates are: Pine Warbler, Feb. 5; Redwing, Feb. 12; Purple Martin, March 15;—all of these birds were seen more or less regularly from the date given to the time of this writing. A Palm Warbler was recorded Feb. 15. A Lesser Scaup, probably a cripple, has lived all winter on a small pond in the middle of Fountain City.

On Feb. 26 the Knoxville Chapter made a field trip to the wildlife refuge at Hiwassee Island (see article in this issue) and saw of particular interest: Great Blue Heron, 23; Canada Goose, 600-700; Bald Eagle, 1; Great Horned Owl, one sitting on nest; Short-billed Marsh Wren, 1. —JAMES T. TANNER, Knoxville.

GREENEVILLE — Mild weather with heavy rainfall and a lack of snow characterized the past season. Notably scarce this winter were the Myrtle Warblers and Cedar Waxwings, and to a lesser degree, Purple Finches and Juncos. It appeared that Brown Creepers and Golden-crowned Kinglets were more abundant than the previous winter, while only one Ruby-crowned Kinglet was recorded. Unusual records for the winter were Red-breasted Nuthatches, four individuals being intermittently observed from November 13 thru January 28.

Among spring arrivals from southward are Grackles, the first being seen on Feb. 7; Redwings, first reported on Feb. 21 and a flock of forty males reported on Feb. 28; ten Wilson's Snipe seen by Mr. and Mrs. J. B. White on March 1, and a flock of over a hundred Cedar Waxwings that have congregated daily to feed upon holly berries near the home of Mr. and Mrs. White. Bird song began with rises in the temperature. Robins were heard singing in the morning and evening of January 25 and 26 and subsequently except during unfavorable weather. On January 24 a banded female Cardinal over seven years old was heard in soft but lengthy song; this seems worth noting as an early date for song in the female. Mourning Doves were heard cooing January 21; a week later song had become common. On March 28 a Mockingbird sang and has continued to sing frequently each springlike day.

Early spring nesting activities, and perhaps also observations, seem to have been retarded by the colder weather being experienced. Doves are to be seen in pairs. On March 18 a pair of Carolina Wrens were near their completed nest in which no egg had as yet been deposited.—RUTH AND RICHARD NEVIUS, Greeneville.

KINGSPORT — The winter which is now about to end has been unsatisfactory in several ways. The weather has been unpleasant; unusually prolonged periods of rain have been followed by cloudy weather with cold winds. Needless to say, this is discouraging to ornithologists. We have had only a few light snows, none of which stayed on the ground, and not more than five days during which the temperature failed to rise to 40 degrees. Thus it was a poor feeding station winter as well as a poor field trip winter. Last winter was also quite mild, but Myrtle Warblers and Cedar Waxwings which were very common then have been almost entirely absent this winter. We had a group of at least forty Wilson's

Snipe and a flock of more than 100 Horned Larks last year which were seen on many occasions. These flocks as well as smaller ones of these species were not here this winter. The flock of Canada Geese observed by Dr. Herndon and Mrs. Pugh on the Christmas Count was the only really exciting record for our group in Sullivan County.—THOMAS W. FINUCANE, Blountville.

ELIZABETHTON — The weather for January and February, 1950, was very mild with average temperatures of 51 and 46 degrees, F., and rainfall of 4.09" and 6.77" respectively. January min. 20 degrees on the 8th, max. 80 degrees on the 25th. February min. 22 on the 5th and max. 76 degrees on the 14th. March has been slightly colder to date. The catbird observed on our Christmas Census Jan. 1, 1950, was present on Jan. 7, 1950, but not observed on subsequent dates. Pied-billed Grebes, about 25, have spent the winter on Watauga Lake. This is the first winter we have had these birds present all winter. Other bird life was almost entirely absent from the lake from the end of the hunting season, until near the end of February, the only birds observed being a few gulls. Myrtle Warblers, Cedar Waxwings and Ruby-crowned Kinglets have been and are still very scarce as compared to the past few winters. Fox Sparrows have been more abundant than usual. On one occasion 14 were in sight at one time at the thicket along Wilbur Lake and one was observed at Lake Phillip Nelson (3500') in mid-February. Also a Mockingbird was observed on the same excursion at the same altitude. White-crowned and White-throated Sparrows are present in about the same numbers as previous winters. The Woodcock was first heard on the evening of February 21 when only one "peent" was heard. On the 24 it was heard to call 76 times between flights. On March 4 after the annual dinner, about 10:00 p.m., approximately twenty of those attending the dinner went out to hear the woodcock. The moon was shining brightly and the bird called several times at close range but was not observed in flight as it did not take off during the short period we were at the location.

For many of the group this was the first time they had heard a Woodcock sing. . . . The first ducks to appear in appreciable numbers were Ring-necked, about 200 being observed on Watauga Lake February 26. On the field trip preceding the annual dinner, March 4, the first Grackle, Horned Grebe and Wilson's Snipe were observed and Fox Sparrows were singing. On the day following the annual dinner, the find of the day was an Orange-crowned Warbler at the Tan Bark pile in Elizabethton. This was the first record for this bird in this area. Species observed on Watauga Lake included: Pied-billed and Horned Grebe, Herring and Ring-billed Gulls, Mallard, Black, Red-head, Canvasback, Ring-necked and Pintail Duck and Hooded Merganser.; on Wilbur Lake, 2 Golden-eye and 130 Ring-necked Ducks, Baldpate and Bufflehead were first observed on March 12th.—LEE R. HERNDON, Elizabethton, Tenn.

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NOTES HERE AND THERE

BINDING OF "THE MIGRANT.—The December 1949 issue of THE MIGRANT completed a series of three volumes, Volumes 18, 19, and 20, and included an index to those volumes. This has been customary because three volumes make a convenient group to be bound together for those individuals and libraries who wish to preserve their MIGRANTS in good condition. A title page for the three volumes is being printed which can be bound in with the numbers. A copy of this title page will be sent to any member or subscriber requesting one from the Editor. Information on binding may also be obtained from the Editor.

A NEW CHAPTER OF THE T. O. S.—Largely because of the efforts of Dr. L. R. Herndon of Elizabethton, a new chapter of the T. O. S. has been established in Bristol, Tenn.-Va. The new chapter took off on a roaring start wtih about thirty members, and their success should continue.

THE 1950 ANNUAL MAY MEETING OF THE T. O. S.—At last year's annual meeting the dates for the 1950 meeting were set,—May 13 and 14 (Saturday and Sunday), in Nashville. Make plans to attend! Information on the meeting will be forthcoming to officers of the various chapters, or it may be obtained by writing to Miss Helen M. Howell, 818 Kirkwood Lane, Nashville 4, Tenn.

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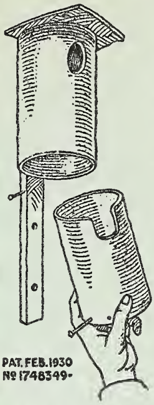

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THE MAN WHO TURNED IN THE FIRST CHIMNEY SWIFT BANDS FROM PERU

By HERVEY BRACKBILL

When the wintering place of the Chimney Swift **(Chaetura pelagica)** was discovered in 1944 through the recovery in Peru of thirteen bands that had been put on birds of that species in the United States and Canada—eight of them in Tennessee—there were tantalizing gaps in the story of the recovery. All that could be learned about this was that the birds had been killed by Indians, and the bands had passed from them through the hands of two unidentified persons to the American Embassy at Lima, which forwarded them to Washington.

As a result of an article published by Dr. Herbert H. Beck, director of the museum of Franklin and Marshall College, Lancaster, Pennsylvania, in the "Bulletin" of the Lancaster County Bird Club for June, 1948, and of subsequent investigation on my own part, it is now possible to fill in a little more of the story.

The person who turned in the bands at the Embassy was the late Dr. Harvey Bassler, of Myerstown, Pennsylvania. Dr. Bassler had spent some years in Peru as a petroleum geologist, and from 1934 until his death this year he was a research associate in herpetology of the American Museum of Natural History in New York. He was in South America again on war work at the time he received the bands. The person who gave him the bands was a Peruvian trader; this trader got them from the Indians.

That it was Dr. Bassler to whom the bands found their way was a fortunate result of his long previous activity in Peru, I found when I interviewed him late in 1948. He gave this account of the event:

He had been in Peru from 1920 to 1931 as a geologist, was there again from the end of 1933 through 1934, and in 1942 went back once more. As a geologist he spent seven months of each year in the field, and in all covered a stretch of the upper Amazon basin about 1,000 by 250 miles in extent; on these travels he took occasion to make extensive collections in several scientific realms—herpetology, ethnology, and entomology among them. The other five months of the year he spent in Iquitos, and there he devoted his spare time to assembling a library of South Americana. All of these activities made him very well known in Iquitos, where he was often referred to simply as "El Doctor".

The Peruvian who actually got the bands from the Indians did not

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know what the little metal objects were. In an effort to find out, upon his return to Iquitos, he first showed them to some other person. That man, equally puzzled by them, referred him to "El Doctor", the naturalist who surely would know. Dr. Bassler explained their nature, obtained them, and gave them to the Lima Embassy.

Because when he handled the bands Dr. Bassler had no idea that he was helping to make ornithological history, but supposed them to be from some species of bird already known to winter in Peru, he regarded the incident very casually; he did not leave his name at the Embassy, and details were not impressed on his mind. In 1948, to his immense regret, he could no longer remember the one of many Indian traders using Iquitos as a base who had brought in the bands; nor could he remember the man who directed the trader to him. Following our interview he began writing to persons in Peru in an attempt to hit upon the identity of these two, but although he pressed this effort for almost a year he enver succeeded.

It was upon his eventual return to the United States in 1944 from his last Peruvian trip that he discovered that the bands had come from Chimney Swifts. He heard at the New York museum of the swift bands' recovery, and recognized from the circumstances that those were the ones he had handled. At that time, he recalled later, he mentioned his part in the event to someone in the museum's department of herpetology, but he could not remember whether he spoke of it to any ornithologist.

The fact that Dr. Beck's article in the Lancaster "Bulletin", naming Dr. Bassler for the first time, contains some errors, some divergencies, from earlier information, and some statements inadequately explained, makes it desirable to review the whole matter.

Frederick C. Lincoln had little detail to offer in his initial report of the band recovery in "The Auk". He said merely (1944:607):

> ". . . the American Embassy at Lima, Peru . . . through the State Department, returned the thirteen bands recovered from some swallows killed by Indians on the River Yanayaco in the region between the Putumayo and the Napo Rivers."

Albert F. Ganier, then editor of "The Migrant", sought more details from both the State Department and the Embassy in Lima, and obtained from the former a slight amplification (1944:39):

> "The bands were transmitted to the American Embassy at Lima by a student in the Library School of the National Library, who was given them by a friend, who in turn was presented them by the Indians".

Dr. Beck published his article in the Lancaster County "Bulletin" as a matter of local pride, since in 1948 and later Dr. Bassler was engaged in work in Lancaster. In the article, Dr. Beck relates that during a conversation he mentioned the discovery of the Chimney Swift's winter home in South America, and quotes Dr. Bassler as responding:

> "One day, in 1944, a trader came into my office at Iquitos in Peru. He had just journeyed about nine hundred miles from a wild region in northeastern Peru. This region is unoccupied by the white man, but he trades there with the Indians. He said to me 'What the devil are these, Dr. Bassler?' He handed me five small aluminum bands, with serial numbers on them, and I immediately knew what they were. When I asked him where and how he got them he said, 'They were handed to me by the Indians with whom I trade in northeastern Peru' . . . (Here follows a purported account by the trader of the way in which the Indians obtained the bands). I took the bands to the American Consul at Lima. He sent them to the Fish and Wildlife Service at Washington and soon it was learned, from the records there, just where these five Chimney Swifts had been banded. . . ."

Through familiarity with the published reports of Mr. Lincoln and Mr. Ganier, I realized upon reading Dr. Beck's article that his identification of Dr. Bassler, if correct, was of more than local interest. But while in its general outline this new account agreed with the previous ones, in some details it differed greatly. The trader was said to have travelled 900 miles from the Indian region to Iquitos; in "The Auk" (1944:609) the Yanayaco River was stated to be "some 40 miles due north from Iquitos" and in "The Migrant" (1944:40) this distance was stated as "approximately 60 miles." The number of bands turned in by Dr. Bassler was said to be only five instead of thirteen.

Wishing to clear up the conflicts among these three published accounts, if that could be done, I got in touch with Dr. Bassler, and he at once agreed to an interview. This took place at his home in Myerstown, on the evening of August 14, 1948. Miss Mary Grebinger, of Millerville, Pennsylvania, a member of the Lancaster County Bird Club, and my brother Donald, of Lancaster, were also present.

The discrepancy between the correct number of bands, thirteen, and the number five that is given in the Lancaster "Bulletin" article, appears to be due simply to an error of memory on Dr. Beck's part. In our interview, Dr. Bassler said of their conversation concerning the number of bands:

"First I thought there were—well, I didn't remember that. Once I thought eleven, then thought that was too many. Then I thought seven, then thought that too many. Then I decided five, although my first reaction was more than five. I think Dr. Beck said "The Auk" reported only five, and so I said, in effect, 'Well, then there must have been only five' although it seemed as if there were at least seven. I have a horror of exaggerating things, and am much more liable to understate. Even now, thirteen seems like a large number, though there may have been eleven."

Under the circumstances, Dr. Bassler's recollection of having handled about eleven bands seems sufficiently accurate to indicate that those were the swift bands. As a matter of fact, they could not have been any others, for Mr. Lincoln, who at the time was in charge of bird-banding activities, states that no others were received by the Fish and Wildlife

Service through the Lima Embassy on any occasion anywhere near the same date.

The conflict in the statement of distance between the Indian district and Iquitos arose from a slip of memory on Dr. Bassler's part; he recollected, in talking to Dr. Beck, that the trader said he had come from the Putumayo River region which can only be reached from Iquitos in a very circuitous way. Dr. Bassler said in our interview that of course the Yanayaco River location that he originally reported was the correct one.

Dr. Bassler related that at the Embassy in Lima he turned the bands over to a girl employee about twenty-one years old, telling her what they were and explaining that they should go in the diplomatic pouch to Washington for identification. He did not give his name to the girl and thought she probably knew very little about him. Some of the Embassy staff were aware that he was collecting books on South America; whether the girl was, he did not know. However, he at no time was engaged in any activity that would have justified his being described as a library student, and how the State Department arrived at that identification in its letter to Mr. Ganier he could not guess.

As for the manner in which the Indians obtained the bands, Dr. Bassler had no information. The quotation on this point that Dr. Beck attributes to him in the Lancaster "Bulletin" is in error; by some mischance, Dr. Bassler said, a statement he made as mere conjecture got into print as fact. It may be mentioned, however, that the conjecture was identical with one made by Mr. Ganier (1944:30-41); namely, that the swifts were smoked down en masse from a roosting place in a hollow tree.

In this connection, it seems advisable to present here, where Dr. Bessler's denial can also be presented, another distorted version of the band recovery that I was given in Lancaster late in 1949, a version that might otherwise get into print some day in a confusing way. A friend of Dr. Bassler's related to me, and others, that:

"Some time previously—perhaps two years back—Dr. Bassler told him that in South America he encountered Indian children wearing bird bands, along with other objects, on strings around their necks. The bands attracted his attention, he recognized what they were, and asked the children whether they could get him any birds of the kind from which the bands came. In due time a child produced a Chimney Swift, and Dr. Bassler realized that he had discovered the species' winter home, and turned in the bands as proof."

In response to my request for written comment on that tale, Dr. Bassler termed it "a very fine example of how luxuriantly legends concerning us may grow and grow among one's thoroughly virtuous friends. You are entirely correct in your confidence that I never told . . . what (he) so pleasantly related to you."

It was at Dr. Bassler's request that publication of the present article was delayed after our interview in 1948. As late as June, 1949, he still had hopes of enhancing it by identifying the other key figures in the band recovery, and then perhaps getting some account from the Indian trader. By November, however, he had given up those hopes. On March 14, 1950, he was killed in an automobile accident near Downington, Pennsylvania. He was sixty-six years of age.

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GOLDEN PLOVERS AT MEMPHIS

By R. DEMETT SMITH

Previous to this year there were only two records of the Golden Plover (**Pluvialis dominica**) for the State of Tennessee. On October 9, 1938, two birds were observed by Ben Coffey at Mud Lake south of Memphis (MIGRANT, 1939, p. 15). On March 24 and 25, 1941, he again listed a single bird at old Bry's Airport on the eastern edge of Memphis (MIGRANT, 1941, p. 35). Records from surrounding areas are as follows: In Arkansas, at Fayetteville, March 20 thru 31, 1883, and at Crockett Bluff, October 22, 1882, small flocks were present, while at Hot Springs National Park from March 28 thru April 14, 1936, and Sept. 9, 1936, never over five birds were present ("The Auk", Oct. 1936, and "Wilson Bulletin", Dec. 1938). Northern Mississippi has produced only three records,—one bird on the levee south of Memphis on April 11, 1936 (MIGRANT, 1936, p. 43), and a flock of fifty on March 26, 1944, and one dead on the highway on April 2, 1946, at Rosedale reported by M. G. Vaiden (MIGRANT, 1948, p. 61). I was unable to find other than recent records for Kentucky, but apparently it is at best an uncommon bird there. It was listed on April 24 thru 26, 1935, and May 15, 1937, and in 1940 in Warren County by Gordon Wilson. On May 11, 1945, and May 13, 1946, plovers were recorded from Marion, Kentucky, and on March 30, 1947, 163 birds were seen at Murray ("Kentucky Warbler", Jan. 1948).

On March 11 of this year, on the 5,017 acre Shelby County Penal Farm, four miles east of Memphis, Mrs. Floy Barefield and I found eighty-six Golden Plovers.

Altho there was only an average rainfall of a little over five inches during March, the rain came at the right intervals (always on weekends) to keep small amounts of water standing in the fields which these birds seem to favor. Our first flock was feeding around these small puddles of water in a heavily populated hog lot. This flock was flushed repeatedly but each time circled to return to approximately the same spot.

The white on the face is the first field mark that stands out on an otherwise brownish looking plover-like bird. In flight the lack of black axillars and white in the tail distinguish it from the Black-bellied Plover **(Squatarola squatarola)**. In no refernce to the Golden Plover either in guides or articles have I found mention of a wing stripe, but all observers here agreed that all birds seen showed a definite light wing stripe. Examinations in the hand showed that the wing coverts were faintly tipped with white and also failed to cover that part of the white quill before the webbing started, thus producing a noticeable wing stripe.

On a hurried return to the Penal Farm on the following day (March 12) we were able to find only 25 birds, altho two days later I found 75 Plovers present. While we were making our second trip to the Penal Farm, Mr. and Mrs. Ben Coffey, still not knowing of our discovery, recorded 26 Golden Plovers on Airfield 21, fifteen miles north of Memphis. On March 18 Coffey found only three birds at the Penal Farm, but a check by him on April 1 showed 73 present. He also found 120 at Airfield 21 on March 21 and a flock of 35 on March 25 on the highway near the field.

On the afternoon of March 23 we went to Arkansas, and at the first appropriate field three miles west of the River we found a flock of 156 Golden Plovers, some feeding in a farm milking lot not fifty feet from a busy highway and not twenty feet from a roadside gas station. One bird, the only one seen during the season in other than winter plumage, was predominately black underneath but nevertheless was as well camouflaged as the rest of the flock. On April 8 the Coffeys in an exhaustive search of plowed and stubble fields found several small flocks and one large one to total 312.

South of the State line of Tennessee there are 15,000 acres of rich Mississippi bottomlands which year after year are plowed during late February and March and then planted in cotton. On March 18, one week after our first acquaintance with the Golden Plover, several flocks were seen flying over this huge area. By this time we were familiar with their carolling notes and swift wheeling flight. We realized that somewhere in this broad area the plovers must be feeding. Luck was with us even in the rain, for after less than a mile down a muddy road we found 160 Golden Plovers feeding on a mud flat and in an adjacent field of short grassy stubble. On the following day these plus other birds in a harrowed field totalled 211. Oliver Irwin also made observations at several places in the area during the week, but it was on the weekends of March 25 and April 1 that we were happily amazed. On March 25 a bird which had been considered extremely rare at Memphis was seen in flocks totalling more than one thousand. The natives were well aware of the birds' presence, thinking them to be Killdeer without the bands, and at this time were able to direct us to the areas in which the birds were to be found feeding. Two birds were collected, this date being the first opportune time that I was able to get close enough to secure one. On April 1 the Coffeys recorded the staggering total of 1,460 Golden Plovers in the same fields. A week later, on April 8, (here I think it permissible to say "only") 151 birds were seen. This week saw the last of the Golden Plovers, for on April 16 one single forlorn bird was seen feeding below the levee.

Altho the Golden Plovers seemed to prefer flat muddy fields or fields with very short grass, they were found at times in grass which was well above their heads. The natives reported their following in the freshly plowed furrows behind the tractors (plowing is seldom done on weekends, thus our not seeing this), and a few birds were seen belly deep in a roadside pond with Pectoral Sandpipers and Lesser Yellow-legs.

One can hardly miss a nearby flying flock for they can be heard for some distance. Flushed birds will circle the field several times as if to gather up any stragglers or to determine if the danger present is cause for leaving. Theirs is a swift flight; William Youngworth of Iowa has clocked them parallel to a highway at seventy miles per hour ("Wilson Bulletin", March 1936).

The passing of Golden Plovers thru Memphis in such large numbers has given us fairly accurate early and late dates of arrival and departure, records for eastern Arkansas, and reason and incentive to look for them in nearby areas in the coming seasons .

It is improbable that the birds have been overlooked before, at least in the past twenty-two years, for during this time there has been a large number of able men (Pond, McCamey, Whittimore, Burdick, Mason, Tucker, and of course Ben Coffey) in the same type fields in March looking for Upland Plover. Rather we would like to think that the actions taken to protect them have caused an increase in their numbers.

P. O. 55, EAST STATION
MEMPHIS, TENNESSEE.

THE 1950 SPRING FIELD DAYS

Seven Spring Field Days were held over the State this year, from one extreme end of Tennessee to the other. A grand total of 177 species of birds were observed. These figures speak well for both the growing interest in bird study and the greater knowledge of birds in this State. The Memphis Chapter on its Field Day listed the greatest number of species, 129, for any one area. The localities are listed below in the order of the dates on which the Field Days were held.

Bristol. April 30, 1950—arocnd Bristol, Tenn.-Va., and Saltville, Va. Cloudy, windy, temperature of about 73 degrees. Most of the shorebirds included on this list were seen at Saltville.

Memphis. May 7, 1950—Main body from 9:30 to 12 and 3 to 4:30. Heavy rainstorms the previous day; this day cloudy with rain from 1 to 3 and 4 to 6 P.M. The places usually covered in the afternoon were not done so thoroly this time; this and the fact that the groups were not organized makes the list not representative. Most observations were made at

Lakeview and the number of birds of each species reported from there is indicated in the Table. The number enclosed in parenthesis are for species observed elsewhere than Lakeview, in parts of Tennessee, Mississippi, and Arkansas in and near Memphis. The compiler strongly advises against anyone using the count herein for comparative or statistical studies.

The Wood Duck was flushed from a tree cavity. The Laughing Gull, in adult plumage, was recorded and identified at different times by Demett Smith, Floy Barefield, Plato Tuliatos, and Ben Coffey. It was seen on Mud Island, as was also the Franklin's Gull reported by the Barbigs and Herbert Clarke. The Purple Finch was seen by Luther Keaton.

Knoxville. May 7, 1950—5:30 A.M. to 6:00 P.M. Within an area of 7½ miles radius centered on Sharp's Gap. This area was covered by separate parties in the morning, which all met at the home of Harry Ijams at noon. This was the second annual Harry Ijams Day. Weather was overcast in early morning, rain most of the rest of the morning, and overcast in the afternoon. The Northern Waterthrush and Blue Grosbeak were seen by Joseph Howell, the Vesper Sparrow by Robert Hornsby.

Greeneville. May 7, 1950—around Greeneville, including Tusculum College campus, Link's Bottoms, Nevius and Reed Farms. Weather rainy in the morning and clear in the afternoon. Eleven observers in four parties. Of the Kingbirds, twenty-five were seen together at dusk in the tops of oak trees on a wooded hill by Mr. and Mrs. J. P. White.

Elizabethton. May 7, 1950—4:30 A.M. to 6:00 P.M. Area around Elizabethton including Watauga Lake and Roan Mountain. Weather overcast with rain. Seventeen observers. Most, if not all, of the birds marked with an asterisk were observed on Roan Mountain at high elevations, except for the Pine Siskins which were all seen in Elizabethton.

Nashville. May 14, 1950—8:00 to 4:00 P.M. Indian Lake near Hendersonville, 20 miles northeast of Nashville, and from Lake out to highway. Weather partly cloudy. About eighty observers attended this Field Day and the annual meeting of the T.O.S. The figures enclosed in parentheses indicate that the species was not observed at Indian Lake but at some other point near Nashville. The Wood Duck was observed with young ducklings. Two nests of Hummingbirds were found. The Junco appeared to have a crippled wing.

Kingsport. May 14, 1950—from daylight to 5:30 P.M. Area largely confined to Sullivan County. Weather rainy with little wind. Seven observers. The Red-backed Sandpiper and Semipalmated Plovers were observed at a private fish hatchery.

The Red-breasted Nuthatches and Nashville Warblers were observed by Steve Russell and Thomas Finucane on Bays Mountain at 1700 ft. elevation.

TABULAR RECORD OF SPRING FIELD DAYS

The abbreviation "c" means "common" and "fc" means "fairly common". For further comments on birds marked with an asterisk (*), see the remarks on the field trip for that locality.

SPECIES	BRISTOL April 30	MEMPHIS May 7	KNOXVILLE May 7	GREENEVILLE May 7	ELIZABETHTON May 7	NASHVILLE May 14	KINGSPORT May 14
Common Loon	-------	-------	-------	-------	4	-------	-------
Pied-billed Grebe	1	-------	-------	-------	10	-------	1
Double-crested Cormorant	-------	1	-------	-------	-------	1	-------
Great Blue Heron	2	5	-------	-------	-------	-------	-------
American Egret	-------	2	-------	-------	-------	-------	-------
Snowy Egret	-------	(1)	-------	-------	-------	-------	-------
Little Blue Heron	-------	13	-------	-------	-------	-------	-------
Green Heron	1	1	2	3	4	2	-------
Yellow-crowned Night Heron	-------	3	-------	-------	-------	-------	-------
American Bittern	-------	2	-------	-------	-------	-------	-------
Least Bittern	-------	-------	-------	-------	-------	2	-------
Blue-winged Teal	4	76	-------	8	2	-------	-------
Wood Duck	5	*1	1	-------	4	*1	-------
Ring-necked Duck	-------	-------	-------	-------	6	-------	2
Lesser Scaup Duck	1	1	1	-------	180	-------	1
Turkey Vulture	18	3	1	5	10	4	7
Black Vulture	3	22	-------	4	1	6	2
Mississippi Kite	-------	2	-------	-------	-------	-------	-------
Sharp-shinned Hawk	-------	-------	-------	-------	2	-------	-------
Cooper's Hawk	-------	1	1	1	1	1	-------
Red-tailed Hawk	-------	-------	-------	-------	-------	1	-------
Red-shouldered Hawk	-------	-------	-------	-------	-------	2	-------
Broad-winged Hawk	-------	(1)	-------	-------	-------	-------	-------
Osprey	1	-------	-------	-------	1	-------	1
Sparrow Hawk	7	2	2	4	5	2	2
Ruffed Grouse	3	-------	-------	-------	2	-------	-------
Bob-white	4	3	28	10	23	4	-------
King Rail	-------	-------	4	-------	-------	-------	-------
Sora Rail	-------	4	1	-------	-------	-------	-------
Coot	8	-------	-------	2	-------	5	2
Semipalmated Plover	-------	-------	-------	-------	-------	-------	*4
Kildeer	27	5	15	8	14	4	16
Wilson's Snipe	4	-------	-------	-------	-------	-------	-------
Spotted Sandpiper	16	1	1	7	14	-------	15

Tabular Record of Spring Field Days—Cont'd

Solitary Sandpiper	8	2	8	3	7	-------	-------
Greater Yellowlegs	4	-------	-------	-------	-------	-------	-------
Lesser Yellowlegs	15	1	-------	-------	1	-------	2
Pectoral Sandpiper	-------	1	-------	-------	-------	-------	-------
Least Sandpiper	1	(14)	-------	-------	-------	2	8
Red-backed Sandpiper	-------	-------	-------	-------	-------	-------	*1
Semipalmated Sandpiper	6	(1)	-------	-------	-------	-------	2
Herring Gull	-------	(2)	-------	-------	19	-------	-------
Ring-billed Gull	-------	(64)	-------	-------	2	-------	-------
Laughing Gull	-------	*(1)	-------	-------	-------	-------	-------
Franklin's Gull	-------	*(1)	-------	-------	-------	-------	-------
Least Tern	-------	(3)	-------	-------	-------	-------	-------
Mourning Dove	84	9	70	57	49	fc	28
Yellow-billed Cuckoo	-------	8	13	5	-------	8	6
Black-billed Cuckoo	-------	6	1	3	9	2	2
Barn Owl	1	-------	-------	-------	-------	-------	-------
Screech Owl	-------	-------	-------	-------	2	(3)	-------
Great Horned Owl	-------	-------	-------	-------	1	-------	-------
Barred Owl	-------	1	-------	-------	2	1	-------
Chuck-will's-widow	-------	-------	10	-------	-------	(3)	1
Whip-poor-will	6	-------	2	-------	20	-------	1
Nighthawk	-------	(4)	12	4	6	(2)	3
Chimney Swift	98	30	67	68	100	fc	13
Ruby-throated Hummingbird	8	16	5	9	8	*3	3
Belted Kingfisher	5	1	3	1	6	1	1
Flicker	21	7	33	27	43	2	14
Pileated Woodpecker	5	1	6	2	4	3	3
Red-bellied Woodpecker	-------	3	7	3	-------	3	3
Red-headed Woodpecker	2	5	8	5	-------	1	-------
Hairy Woodpecker	2	2	-------	-------	1	2	3
Downy Woodpecker	12	4	6	-------	17	4	4
Eastern Kingbird	8	2	11	*39	20	3	6
Crested Flycatcher	3	12	29	25	2	fc	11
Phoebe	37	1	15	14	54	2	8
Acadian Flycatcher	1	6	4	-------	11	fc	14
Least Flycatcher	-------	-------	-------	-------	21	-------	-------
Wood Pewee	1	12	24	11	46	5	18
Horned Lark	3	----	4	-------	4	-------	1
Tree Swallow	-------	152	-------	-------	-------	-------	-------
Bank Swallow	-------	10	-------	-------	-------	-------	1
Rough-winged Swallow	11	67	16	5	59	7	9
Barn Swallow	4	24	17	4	4	2	19
Cliff Swallow	-------	-------	-------	-------	2	-------	-------
Purple Martin	-------	11	20	43	10	3	6
Blue Jay	42	19	42	66	54	fc	30

Tabular Record of Spring Field Days—Cont'd

Raven					*2		
Crow	40	3	54	14	60	fc	35
Fish Crow		4					
Carolina Chickadee	44	4	36	15	90	c	20
Tufted Titmouse	36	9	41	19	80	fc	25
White-breasted Nuthatch	1		1	7		1	1
Red-breasted Nuthatch	6				*7		*3
House Wren	18	3		12	*10		5
Winter Wren					(Z)*12		
Bewick's Wren	7	(1)	9	5	1	3	1
Carolina Wren	16	12	55	33	61	fc	17
Short-billed Marsh Wren			1				
Mockingbird	15	7	63	59	35	4	32
Catbird	66	7	32	64	118	1	19
Brown Thrasher	46	7	30	37	44	3	30
Robin	76	9	95	68	165	2	50
Wood Thrush	19	17	49	32	154	8	45
Olive-backed Thrush		2	5		2	fc	7
Gray-cheeked Thrush		(3)				2	
Veery	1	(1)			*11	2	
Bluebird	15	6	29	23	34	fc	13
Blue-gray Gnatcatcher	21	15	29	11	7	fc	12
Golden-crowned Kinglet					*8		
Ruby-crowned Kinglet	1	1	1		3		
Cedar Waxwing		48	15		5	3	4
Migrant Shrike		4	2			1	
Starling	75	6	115	220	50	fc	100
White-eyed Vireo	38	16	23	3	23	fc	11
Yellow-throated Vireo	2		13	3	10	5	2
Blue-headed Vireo		(3)			*8		
Red-eyed Vireo	25	33	45	7	118	c	55
Philadelphia Vireo		3					
Warbling Vireo	2	6	1		7	1	3
Prothonotary Warbler		17	2			8	
Black and White Warbler	44	2	15	7	49	1	10
Swainson's Warbler		1					
Worm-eating Warbler	2			1	1		10
Golden-winged Warbler	1		1		5		
Tennessee Warbler		18	7			fc	3
Nashville Warbler		1					*1
Parula Warbler	40	10	3		21	1	6
Yellow Warbler	53	10	29	15	84	2	10
Magnolia Warbler		10	10	3	3	3	4
Cape May Warbler			4		11		1
Slate-colored Junco					*41	*1	

Tabular Record of Spring Field Days—Cont'd

Black-throated Blue Warbler	-------	-------	-------	1	35	-------	1
Myrtle Warbler	1	21	19	7	10	1	7
Black-throated Green Warbler	17	22	4	2	12	1	15
Cerulean Warbler	-------	-------	-------	-------	-------	5	12
Blackburnian Warbler	6	7	12	5	9	3	4
Yellow-throated Warbler	7	4	7	-------	-------	4	2
Chestnut-sided Warbler	10	2	8	2	30	3	1
Bay-breasted Warbler	7	12	5	1	25	8	36
Black-poll Warbler	-------	12	12	2	6	6	14
Pine Warbler	1	-------	5	1	-------	-------	2
Prairie Warbler	4	-------	12	3	12	-------	2
Palm Warbler	-------	9	7	3	-------	-------	-------
Oven-bird	15	8	7	1	66	1	15
Northern Water-thrush	-------	-------	*1	-------	-------	-------	-------
Louisiana Water-thrush	19	4	8	1	15	3	5
Kentucky Warbler	10	1	14	3	7	3	7
Yellow-throat	47	13	26	17	80	fc	14
Yellow-breasted Chat	34	17	41	12	55	fc	11
Hooded Warbler	21	-------	5	-------	16	6	32
Canada Warbler	3	(2)	5	-------	*16	3	-------
Redstart	19	27	4	8	22	5	5
English Sparrow	80	6	34	50	100+	1	70
Bobolink	-------	27	8	-------	17	(1)	2
Eastern Meadowlark	41	30	61	86	68	c	27
Red-wing	67	56	59	56	28	fc	10
Orchard Oriole	7	9	12	8	4	c	17
Baltimore Oriole	7	6	2	1	2	2	2
Bronzed Grackle	65	23	58	51	76	5	87
Cowbird	31	18	50	3	33	5	8
Scarlet Tanager	13	6	4	1	47	2	38
Summer Tanager	10	10	29	18	17	fc	10
Cardinal	50	35	96	80	127	c	25
Rose-breasted Grosbeak	1	6	2	-------	14	1	5
Blue Grosbeak	-------	-------	*1	-------	-------	-------	-------
Indigo Bunting	13	61	90	26	91	c	27
Painted Bunting	-------	1	-------	-------	-------	-------	-------
Dickcissel	-------	52	-------	-------	-------	6	-------
Purple Finch	2	*1	-------	-------	-------	-------	-------
Pine Siskin	1	-------	-------	-------	*58	-------	-------
Goldfinch	94	6	153	88	143	12	2
Red-eyed Towhee	71	(1)	57	46	114	5	47
Savannah Sparrow	10	20	-------	-------	-------	-------	4
Grasshopper Sparrow	17	4	42	7	35	fc	8
Vesper Sparrow	-------	2	*1	-------	-------	-------	-------
Bachman's Sparrow	-------	-------	2	-------	1	1	2

Tabular Record of Spring Field Days—Cont'd

Chipping Sparrow	61	-------	32	11	80	fc	15
Field Sparrow	22	1	72	21	136	fc	41
White-crowned Sparrow	21	-------	1	7	4	-------	-------
White-throated Sparrow	23	5	7	2	13	3	3
Lincoln's Sparrow	-------	4	-------	-------	-------	-------	-------
Swamp Sparrow	6	-------	3	-------	-------	-------	-------
Song Sparrow	97	-------	68	37	118	-------	41
Total Species	108	129	112	87	121	106	110

THE ROUND TABLE

LATE ARRIVAL OF PURPLE MARTINS AT ELIZABETHTON—Purple Martins, which for a number of years have regularly been nesting in the houses put up for them by Stanley Gregg at his residence on Watauga Pike in Elizabethton, arrived at a late date this year. Two males made their appearance in the afternoon of March 25, and two females were observed additionally in the early morning of March 27, having probably arrived the previous evening. In 1949 the Martins came unusually early, on March 5. In the preceding three years they arrived at their usual date of March 15.—FRED W. BEHREND, 322 Carter Boulevard, Elizabethton, Tenn.

A TENNESSEE WARBLER FOUND IN NASHVILLE IN JANUARY.—A dead Tennessee Warbler (**Vermivora peregrina**) was brought to me for identification; no details of its capture nor the name of the captor are available, but on January 28, 1950, the living bird was brought to the Children's Museum with the statement that it was taken in the Belmont section of Nashville. It was placed in a cage where it died later. I found no visible external injury. The specimen was made into a skin for his collection by A. F. Ganier.

This is the first known winter specimen of this species for Tennessee. There are two winter sight records. G. R. Mayfield reported seeing one near his home in Nashville from November 17, 1934, until January 2, 1935 (1935, Migrant 6(1):14). George Foster reported one in Knoxville on January 3, 1936 (1936, Migrant 7(1):24. — AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 4.

ORANGE-CROWNED WARBLER AS SPRING MIGRANT.—The Orange-crowned Warbler (**Vermivora celata**), listed in A. F. Ganier's "Birds of Tennessee" as a rare transient, is known to me through fall observation near Clarksville on dates ranging from October 8 to 21 and extending over a period of years. Sight identifications are supported by four collection records. Since in fall plumage even more than that of spring this warbler is not easily recognized by color and markings, his actions became for me a good guide to his identity. "Bouncing and dancing" conveys an idea of the combination of his vigor and grace.

Published spring records of this species for Middle Tennessee seem to be lacking, so that the following should be of interest. In the evening of May 20, 1949, I was standing with a friend, Mr. H. C. Phillips, near his bird bath on the Austin Peay State College grounds, when a warbler bounced into the bath and danced out of it to a branch overhead, shook himself a moment and did it all over five or six times in quick succession. Points of its plumage observed during this agitated performance were the greenish, lighter underparts, the light brush mark over the eye and the occasionally well visible orange crown, establishing a good sight record for the Orange-crowned Warbler in spring migration.—ALFRED CLEBSCH, Clarksville, Tenn.

GRACKLES PREENING IN PECAN TREES.—In "The Round Table" for June 1949 (Migrant, vol. 20:37-38) Amelia R. Laskey gave an account of "A Blue Jay Anting" and added reference to recent literature on the topic. Mention is made of birds using other materials for a performance similar to anting. The following presents an observation of the latter procedure including some unusual features.

The 1949 growing season produced a heavy crop of fleshy fruit and nuts so that vegetarian birds found ample food, from serviceberries and mulberries in June to privet fruit and buckberries the next March. In contrast a pecan tree at my house, for over twenty years a provider of nuts for Downy Woodpeckers and Blue Jays in winter, stood bare for the first time. Like other nut trees it had flowered and set fruit abundantly, but during the summer the unripe nutlets had been put to a new use.

On successive days in the first part of July a noisy group of Grackles **(Quiscalus quiscila)** was noticed in this tree. Owing to the dense foliage a rough estimate of one or two dozen birds in the tree at one time will have to serve, and only three times did individuals give me an unobstructed view of their actions. From a secure perch on a branch the Grackle walks foot over foot out on a twig, soon resembling a tightrope walker about to lose his balance. When a cluster of nutlets is in reach and a fair equilibrium established, the head is stretched forward and the bill grasps one of the nutlets. Feet and legs are braced, the neck arched, and with biting and pulling the nut is severed. Now considerable flapping of wings is needed to keep the bird from doing a somersault on the limber twig. As soon as he sits steady again, the feathers of the back get three or four preening strokes from one side, a lick and a promise from the other. The bird takes a new stance, picks up another nutlet and repeats the maneuver. The breast plumage also gets some vigorous daubs with the bleeding nut fragment. The scene ends with the Grackle flying off. The birds visited this tree at the same time, around 6:30 each morning, for about two weeks. A specimen of a twig was secured showing two nutlets bitten off to one half and a third one taken off short. The Grackles did not leave a single nut to ripen.

As compared to the procedure of anting and the use of substitute materials described by others, the most important variation of these Grackles is that they were off the ground. The fact that back and breast plumage received attention and not the wings or the primaries separately can be a consequence of the birds needing their wings in case of lost balance.—ALFRED CLEBSCH, Clarksville, Tenn.

A DICKCISSEL WINTERING AT NASHVILLE.—A Dickcissel (**Spiza americana**), banded at my home on December 6, 1949, is apparently the first winter record for Tennessee. The same bird was recaptured on January 19, 1950, and from then on I searched daily for it, recording it on 69 days until its final appearance on May 5. It ate millet seeds at a feeding station close to the house. It had excellent flight, and after its second capture avoided the banding traps. In winter it associated with a group of House Sparrows (**Passer domesticus**) where it could easily have been overlooked on account of its similarity to the female of that species.

This Dickcissel was in female plumage, lacking the black marking on its yellow breast. The flattened wing measured 75 mm. and the tail 50 mm. At 10:00 a.m. on December 6, it weighed 25.5 grams, and at 1:30 pm. on January 19, the weight was 27 grams.

In more than eighteen years of banding, this is the first Dickcissel that I have taken. For many years, none has been seen in this neighborhood. In the Nashville area the species is very rarely recorded after July.

Although the species winters in South America, some published winter records for this country have come to my attention. There is a specimen in the Museum of the Louisiana Department of Agriculture at Baton Rouge which was collected at New Orleans in December 1932 (1938, Bird Life of Louisiana, H. C. Oberholseer, p. 635). For South Carolina, records were obtained in 1935 and 1940 in Dorchester County. A bird was seen from late January to April 1935, and 2 birds were seen in January 1940 (1949, South Carolina Bird Life, Sprunt and Chamberlain, p. 517).

In Massachusetts, one came to a feeder in Amherst from November 25, 1947, to January 7, 1948 (1949, Audubon Field Notes, p. 36). At Northhampton, one was banded October 23, 1948. One was banded at Wyncote, Pennsylvania, on November 29, 1948, and another on January 6, 1949. The banding records appeared in EBBA News, 1949, 12(1);4.

Alfred O. Gross made a study of the Dickcissel in Central Illinois (1921, Auk 38 (1):1-26) and 38(2):163-184). He says (p. 12): "The fall migration of the Dickcissel has been given but scant attention by observers in Central Illinois. The silent departure of these birds in autumn is nevertheless quite as interesting as their more heralded coming in the springtime. In August, at the close of the nesting season, the Dickcissels rove about for a short time as family groups, these soon unite with others, which in turn may join still larger aggregations to form roosts of several hundred individuals. In 1908 a roost, which contained considerably more than 300 birds on August 20, had very few representatives on September

1, and by September 10, all had left, presumably for the southland." He described a roost under observation in 1918 along the banks of a large drainage ditch, the sides of which were covered for nearly a mile with giant rag-weeds and horse-weeds, eight to ten feet high. A few could be seen feeding on the seeds or bathing in the water almost any hour of the day, but the mass of individuals came in at twilight. On August 5 there were about 50 birds, on August 8 about 125, but on August 10 he counted 485 adults and young, and believed that more than twice that number were concealed in the dense weed growth. By August 15 the number had decreased and he believed that the migration had begun. His latest record was of a young male bird collected October 2, 1907.—AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 4, Tennessee.

BACHMAN'S SPARROW AT HIGH ALTITUDE IN SOUTHERN APPALACHIAN MOUNTAINS.—To the bird student regularly in the field during all seasons, there comes once in a while the thrill of some particularly interesting observation at an unexpected time in an unexpected place. This was the happy experience of Stephen M. Russell and Fred W. Behrend of the Bristol and Elizabethton chapters, respectively, of T.O.S., on their trip to Cold Spring Mountain on April 23, 1950.

The crest of Cold Spring Mountain forms the dividing line between the southeastern part of Greene County in Tennessee and the northeastern part of Madison County in North Carolina. Cold Spring Mountain is predominantly a "bald". Its highest point (4838 ft) is known as "Big Butt".

A short distance southwest of "Big Butt", on a bare rounded knob at approximately 4700 ft., the observers noted a sparrow fly off the ground and into a small hawthorn tree. Having previously on the hike listed some ten Field Sparrows, the offhand thought was that the bird was just another of this species, but a glance through the binoculars revealed this was a different bird. In contrast with the Field Sparrow's, its bill was dark and appeared rather large. The rusty crown, finely streaked and revealing an indistinct center stripe, extended down to the blackish striped back. The bird's tail, at times flicked, was long and rounded, the legs and feet of pinkish color. When the bird changed its position, permitting a frontal view, we noticed its unstreaked breast was buffy, its sides of the same rusty color as the crown, and there was yellow discernible in the feathers on the bend of the wing. A pronounced buffy stripe showed above the black eye.

Several opportunities were had to observe the bird at close range, once at a distance of only six feet. Part of the time the bird walked or ran along the trail or thru the weather-beaten weeds and grass and at other times it was in rhododendron bushes, where it once emitted a clear, melodious song.

The observers concluded that the bird was a Bachman's Sparrow, and the conclusion was confirmed when returning from the trip we studied the literature on this Sparrow. It may be noted that there have been reports from Blountville and Johnson City, Tennessee, of the apparent breeding of the Bachman's parrow there at altitudes of approximately 1600-1700 feet.—FRED W. BEHREND, 322 Carter Boulevard, Elizabethton, Tenn.

THE 1950 ANNUAL MEETING

The 35th annual meeting of the Tennessee Ornithological Society was held in Nashville on May 13-14, 1950. The morning of the 13th, Saturday, was given over to a field trip at Radnor Lake and another to a Black-crowned Night Heron rookery, and to open houses at various places in Nashville. At 1:30 P. M. the business meeting of the directors of the Society was called to order; the important business transacted at this meeting and at the annual meeting of the members held on Sunday is described below.

After the business meeting, a program session was held in the auditorium of the Nashville Children's Museum. The following short papers were presented: "Notes on Warbler Migration", by Mrs. Robert A Monroe of Knoxville; "The Status of the Song Sparrow in Tennessee", by Dr. L. R. Herndon of Elizabethton; "Recent Bird Observations about Tennessee-Kentucky Lake", by Eugene Cypert of Paris; "Golden Plover Migration in the Memphis Area", by Demett Smith of Memphis; "The Chimney Swift Banding Program in Tennessee", by Ben B. Coffey, Jr., of Memphis; and "A New Black-crowned Night Heron Nesting Colony near Nashville", by Albert F. Ganier of Nashville. These papers were all enjoyed by those present. Following the meeting everyone had an opportunity to examine an exhibit of bird paintings by Robert Tucker, Richard Parks, and Robert Mengel.

On Saturday evening the usual dinner was held after which the members present were introduced. Seventy-seven people were present, including four visitors from Birmingham, Alabama. The introductions were followed by a talk on "Some Birding Jaunts into Old Mexico", given by Mr. Ben B. Coffey, Jr., and illustrated by kodachrome slides taken along the way.

The annual meeting of members was held at Indian Lake after the field trip and lunch. The important business transacted at the directors' meeting and this meeting is described below.

The following individuals were elected to be Honorary Life Members: Mr. H. P. Ijams of Knoxville, Dr. Harry S. Vaughn of Nashville, Mr. A. C. Bent of Taunton, Mass., Mr. H. C. Oberholser of Cleveland, Ohio, and Dr. Alexander Wetmore of Washington, D. C. The first two men have long been active in ornithology within the State, and the last three are nationally known ornithologists who have been corresponding members of the T. O. S. It was moved ad passed that individuals who had been members of the Society for 35 years, or who had been members for 25 years and were 65 years of age should become members in good standing with no further payment of dues. Five members were thus honored.

Section 2, Article III, of the Constitution of the Society was amended so that the first sentence now reads: "There shall be elected from each chapter a Director for each ten members or major part thereof, and each Director shall serve for two years or until a successor is elected". In the discussion concerning this amendment, it was concluded that a major part of ten was six or more. It was also concluded that only paid memberships were entitled to be counted in determining the number of directors for a chapter; family memberships based on the payment of one $1.50 for dues are therefore to be counted only as a single membership.

Section 1 of Article VI, which states how the Constitution should be altered, was changed to simplify the method of making amendments. Section 1 now is:

"Sec. 1—Any Chapter thru its Secretary, or any Active Member, may propose an amendment to the Constitution by notifying all Officers, Directors, local chapter Presidents and Secretaries, of the proposed change, in writing by first class mail, thirty days before a meeting of the Board of Directors. The Secretary shall furnish names and addresses of these parties on request. The President shall present the proposed Amendment to the meeting of the Board of Directors, who may, by two-thirds vote, accept, reject, or revise, in whole or in part, the proposed change. If accepted as presented or revised, the Board of Directors shall, thru the President, present the resulting proposal to the following regular meeting of the membership. If rejected, the proponent may present the proposal to the membership, provided the foregoing notification requirement has been met. In either case the proposal would become an Amendment to the Constitution if approved by two-thirds of the Active Members present at the regular meeting."

A motion was made and passed that members not paying dues for the oncoming year shall receive the March MIGRANT, be notified of their delinquency, and then be dropped if their dues are not paid; in short, members delinquent in dues for three months will be dropped.

The following slate of officers of the Society for 1950-51 was submitted and approved: President—Mrs. Ben B. Coffey of Memphis; Vice-President from West Tennessee—Mr. Kirby Stringer of Memphis; Vice-President from Middle Tennessee—Mr. B. H. Abernathy of Nashville; Vice-President from East Tennessee—Mr. Fred Behrend of Elizabethton; Secretary—Mr. E. D. Schreiber of Nashville; Treasurer—Mr. Lawrence Kent of Memphis; Curator—Mr. A. F Ganier of Nashville; Editor—Mr J. T. Tanner of Knoxville. The following directors at large were elected: for West Tennessee—Mr. Eugene Cypert of Paris; for Middle Tennessee—Mr. Henry Todd of Murfreesboro, for East Tennessee—Mr. Arthur Stupka of Gatlinburg. Mr. Al Mayfield of Nashville was elected chairman of the Finance Committee.

The 36th annual meeting of the T. O. S. will be held on May 12-13, 1951. It is being considered that the meeting will be held at Standing Stone State Park.

A ROUND-UP OF CHAPTERS AND MEMBERS

Since a similar "Round-up" appeared in THE MIGRANT a year ago, the number of chapters of the T. O. S. has increased by one, with the formation of the Bristol Chapter. A the annual meeting of the Directors of the Society on May 13, the chairman of the Membership Committee, Dr. L. R. Herndon, reported that the membership of the Society had increased by twenty-four during the past year despite the dropping of many members for non-payment of dues. There follows a brief summary of the chapters of the T. O. S., giving the approximate number of members and as best as possible the names of the officers.

Nashville Chapter—70 members. President—Al H. Mayfield; Vice-President—Miss Helen M. Howell; Secretary-Treasurer—Miss Penelope Mountford; Chairman of Program Committee—Albert F. Ganier.

Memphis Chapter—89 members. President—Miss Nelle Moore; Vice-President—Miss Mary Davant; Secretary—Miss Ella Hutcheson Ragland; Treasurer—Brother I. Vincent; Curator—Mr. Ben B. Coffey, Jr.

Knoxville Chapter—36 members. President—Dale W. Yambert; Vice-President—Andrew J. Meyerriecks; Secretary-Treasurer—Mrs. E. E. Overton.

Greeneville Chapter—13 members. President—C. M. Shanks; Vice-President—Richard Nevius; Secretary—Mrs. J. B. White; Treasurer—Mrs. Willis Clemens; Statistician—Mrs. Richard Nevius; Publicity Chairman—C. E. Anderson; Historian—Mrs. Willis Clemens.

Elizabethton Chapter—28 members. President and Statistician—Mrs. L. R. Herndon; Vice-President—Mrs. Avery W. Evans; Secretary—Miss Margot Schlien; Treasurer—Mrs E. M. West; Publicity Chairman—Fred W. Behrend; Historian—Mrs. J. C. Browning.

Kingsport Chapter—21 members. President—Thomas W. Finucane; Vice-President—Albert Wilkes, Jr.; Secretary—Miss Ruth B. Dunn; Treasurer—Mrs. Robert W. Pugh.

Bristol Chapter—34 members. President—Dr. B. H. Barrington; Secretary-Treasurer—Miss Esther A. Hilton; Statistician—Stephen M. Russell; Historian—Miss Virginia Burton.

There are 33 members in Tennessee who do not belong to an active chapter, and 103 corresponding members residing outside of Tennessee. Subscriptions to THE MIGRANT come from 28 libraries and similar institutions, and exchange and complimentary copies of THE MIGRANT are sent to 36 addresses.

CORRECTION

The title of the article published by Henry M. Stevenson and Thomas A. Imhof in the March 1950 MIGRANT should have read "The Fall Migration in the Tennessee River Valley of Alabama". Instead of Ring-tailed Gull on page 6, should have been, of course, Ring-billed Gull.

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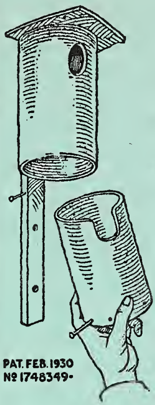

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HORNED LARK NESTING NEAR NASHVILLE

By KATHERINE A. GOODPASTURE

This report is concerned with observations on a pair of Horned Larks **(Eremophilia alpestris)** during four attempts at nesting in March thru July, 1950, twenty miles from Nashville, Tenn., in the South Harpeth River Valley.

On March 19, 1950, a pair of larks was discovered on the farm of Mr. Cliff Linton on Bedford Creek four miles south of Highway 100 up the South Harpeth Valley. They were in the same area a few days later and nesting was suspected. On three dates during the next week the male was alone and singing in what we may call the North field. During one three-hour interval when he was constantly watched, he did not approach a nest. Nor did systematic tramping of this ten-acre field flush the female. Late in the afternoon of April 2 the female was with the male in this field. After a few minutes of dusting and picking in the bare soil she, followed closely by the male, flew across the road into the similar ten-acre South field. They were quickly followed and immediately relocated. Within three or four minutes the female carried food to the nest. The nest contained one unhatched egg and three young with dark skin and dust-colored tufts of down of a day-old pattern. The female fed, then brooded, the young several times during fifteen or twenty minutes. She collected food within thirty feet of the nest and seemed undisturbed by our presence twenty feet away. The male sang jubilantly from clods within the same radius.

Four days later, April 6, the nest was empty. It looked weathered by recent rains but except for one loosened bit of material was intact. The nest was in a typical cup-like excavation in the bare ground; it was entirely open and exposed, unrelated to a clod, stone, stalk, or protection of any kind. It was built of grass blades and small stems; the lining was of a small amount of cottony weed seeds and three or four tiny feathers. Two or three stones judged to be "paving stones" were at one edge of the nest.

Each of these ten-acre fields, divided only by the fenced right-of-way of a graveled county road, was a bare, cloddy soil of soft color and texture mellowed by weathering since fall plowing. The South field showed no vegetation. The North field showed only small bits of green on the vertical sides of large half-turned clods.

On the morning of April 9 the male was in the South field singing near the female, who in a desultory manner gathered building material which she deposited on the ground in no relation to a nest. On April 23 the male was alone singing in the North field in exactly the same attitude as during the previous incubation period. A second nesting period was suspected. Because of recorded dates of recent discing of both fields a nest in incubation could not have been either in the North or South field, and the female was not flushed from two other small cultivated areas nearby. Late in the afternoon of May 3 Mrs. Amelia Laskey and I found the male singing in short tinkling phrases while hunting diligently for food in the furrowed ground of the North field. After about ten minutes he doubled up a cutworm-like larva, paused on top of a clod, and took flight from the North field across the road and over a green pasture adjoining the South field. The distance of his flight was farther than we could follow so near dusk. He returned in a few minutes and repeated the same activity carrying away another big larva. On May 5 the female was alone in the North field not feeding or hunting for food but dusting and resting. The probability that the male was at this time tending young of a second brood that had left the nest and were still near the nesting area is supported both by my subsequent observations and Pickwell's studies (1931). However, neither the nest nor fledglings of this period were found. The time intervals related to the behavior of the birds and especially the determined food-carrying of the male are presented as evidence, even if not conclusive, of a second nesting period during which young were likely being fed.

During May, June, and July numerous additional records of the activities of this pair of larks were made. Two additional nests were watched from building through their periods of activity. This is an experience which, according to Pickwell (1931) has been rarely recorded. Only summarizing notes are presented.

May 20, 12:30 p.m. Female repeatedly carried building material to a nest on the gravelly south embankment within the road right-of-way between the North and South fields. It was protected above by a tuft of sour dock **(Rumex acetocella)** and below by a lower tuft of the same plant. The entrance was well marked by paving stones. No egg was noted during a quick inspection. This nest was roughly 125 feet from the first one.

May 21, 8:30 a.m. The nest contained two (!) lark eggs.

May 25, 2:00 p.m. The nest contained four eggs.

May 27 and 28. The female was incubating. She appeared to flush from the nest regularly on the approach of an automobile, which occurred only infrequently.

June 2, 9:00 a.m. Alas! the nest was empty. Dried grass blades and stems formed the chief nest material. No special lining could be determined.

June 11, 12:30 p.m. Male, circling high, was heard in a flight song which concluded with a 75-100 foot plummet to the North field.

June 16, 7:30 a.m. Female repeatedly carried nest material to an excavation in the South field about 1000 feet from the first nest and 200 feet more from the third nest. The South and North fields now had corn up twelve inches. This fourth nest was in the row between a corn stalk and a clump of crab grass (**Digitaria sanguinalis**). Except once when she settled to shape the materials with her body she deposited material quickly and hurried away to gather more, always gathering within fity feet of the nest.

June 18. The completed nest contained one egg. Mr. Linton expressed his interest in the larks and their nesting efforts by marking the nest with upright stakes and by lifting the plows of his tractor over this part of the corn-row. The nest was not endangered by the plowpoint but by dirt which would have been thrown onto the row. The corn was plowed twice during this nesting period and the nest was carefully protected each time.

June 21. Nest contained three eggs, one of which was of slightly darker color.

June 23-30. Female was incubating a full clutch of four eggs.

July 3, 9:30 a.m. Nest contained one dry, dark-skinned nestling with patches of light dust-colored down. There was no sign of the other three eggs or young.

July 4, 7, 8. The young bird showed normal if not slightly precocious development according to Pickwell's growth chart (1931).

July 9. Mrs. Laskey banded the nestling. Its body was well feathered. Tail feathers were unsheathed but only a few of the primary pin feathers were breaking out. Its eyes were open; it was alert but silent and not in the least fearful.

July 11, 10:000 a.m. The nest was empty. Fifteen minutes observation and search revealed the male parent feeding the fledgling 75-100 feet away from the nest. The young gave single-note food calls as the parent approached and the adult uttered two or three quiet tinkling notes as he fed. Worms and a grasshopper constituted the visible food. The fledgling was active and hopped along easily after the adult over the plowed rows. At this time the corn stood 5½ feet tall; the crabgrass at the nest shaded and obscured it. Grass blades, stems, and rootlets constituted the chief building material. However, the bulk of this fourth nest was decidedly less than those of the first and third nests. Two tufts of sheep's wool substituted for downy seeds and soft feathers as lining material. Like those described by Pickwell (1913), the nest excavation extended somewhat under one side of the grass tuft. A worn pathway over the paving stones marked the entrance.

It may be pointed out that during these four nesting periods the North field served as a feeding territory and all nesting took place south of the dividing roadway. The three nests which were actually located were within a 150 foot radius in the South field. Cultivation probably drove the birds from the immediate area during their second nesting. The male spent the incubation periods in the North territory; it was the territory to which the female usually flew when disturbed at the nest and from whcih, with one exception, food was observed to be collected. The paving stones at each nest marked an exit toward the North field.

The first nest of the Prairie Horned Lark found in Tennessee, April 5, 1925, was reported by A. F. Ganier (1931). It was on Paradise Ridge ten miles northwest of Nashville. In 1929 Mr. Ganier found another nest at the same site. In 1930 and 1932, Harry Monk and Compton Crook separately found other nests in the same locality (Ganier, 1941, and letter from Crook to Monk). In May, 1931, G. P. Dillon (1931) found a nest in Houston County sixty miles slightly north and west of Nashville. Some weeks later a second nest of the same pair was located 200 feet from the first. Dan Gray (1932) found a nest on his farm near Mt. Pleasant in 1929. This location is about forty miles south of the currently reported one and is well within the Central Basin of Tennessee. I am indebted to Mr. Monk for the citation of several records including one of two nests, May 22-25, 1942, found at Leighton in northwestern Alabama by Mr. King (McCormack, 1943).

In addition, a number of larks have been recorded in the Middle Tennessee area during their normal nesting period without nests having been located, amongst which records are those of Alfred Clebsch (1937) and James A. Robbins (1940). Such a record of the current season was made by Mrs. Laskey who found larks in a fallow field adjoining the Nashville Airport on April 22, 1950. Two months later, June 21, two larks were observed on the airport landing strip. However, when one considers the few records during the last twenty-five years he must still regard the Horned Lark as a rare nesting species not only in the Nashville area but in all of Middle Tennessee. The accumulation of data may eventually describe a gradual extension southward of the nesting of Horned Larks.

SUMMARY

1 A pair of Horned Larks was found nesting twenty miles southwest of Nashville in the South Harpeth Valley area.
2. The pair was observed through four attempted nestings from March 19 through July 11, 1950.
3. Three nests were found in each of which a clutch of four eggs were laid.
4. From twelve eggs known to have been laid only one fledgling, that of the fourth nesting, developed to leave the nest (July 11).
5. The second nesting, altho a nest was never found, was apparently successful judged by observations of the male carrying food.
6. Two nests, discovered by watching the female carrying nest building material to the nest site, were watched from building through their periods of activity.
7. One nest in a completely exposed, bare situation, unrelated to a clod, stone, stalk or vegetation is described.

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NOTES OF SOME SPECIMENS OF BIRDS FROM SHELBY COUNTY, TENNESSEE

By R. E. TUCKER

This report is based on a collection of birds from Shelby County, Tennessee, which is deposited in the Museum of Zoology of the Louisiana State University at Baton Rouge. This report is not a comprehensive review of all of the specimens contained in the collection as notes are given only on those species or subspecies for which new or important information has been acquired. The collection of birds from Shelby County is composed of birds taken over the years from 1939 until 1947 by Eugene Wallace, myself, and the late Austin W. Burdick.

With exceptions the specimens have all been identified by me. Some had been previously identified along with other material in the L. S. U. collections by various authorities. I am indebted to Dr. Alexander Wetmore who kindly examined a few of the specimens for me. These are noted in the text. I am particularly indebted to Mr. H. Eugene Wallace and the late Austin W. Burdick who untiringly devoted themselves to the obtaining of much of the material in the collection.

WESTERN SOLITARY SANDPIPER (**Tringa solitaria cinnamomea**). There is one specimen of this large race in the collection; a male taken at Mud Lake on August 13, 1939.

EASTERN MOURNING DOVE (**Zenaidura macroura carolinensis**). Unfortunately there is only one specimen of mourning dove in the present collection. Dr. Wetmore examined it and referred it to the eastern subspecies. As the National Museum party of 1939 collected specimens of the western bird, **marginella**, in west Tennessee, the taxonomic status of the species in that part of the state is uncertain. Dr. Wetmore wrote in comment, "the birds that Mr. Perrygo collected are definitely much paler . . . It is possible that the birds that I identified earlier as the western form were migrants, but it seems more probable that there is here an area of intergradation so that the doves may be intermediate. Under such conditions some may resemble one form and some the other."

EASTERN NIGHTHAWK (**Chordeiles minor minor**)

FLORIDA NIGHTHAWK (**Chordeiles minor chapmani**). The former race occurs in Shelby County only as a migrant, as the race **chapmani** is the nesting one. Six specimens comprise the present collection, five of which are the migrant bird.

SOUTHERN FLICKER (**Colaptes auratus auratus**)

NORTHERN FLICKER (**Colaptes auratus luteus**). There are only two specimens of Flickers in the collection. One, taken August 8, is the southern bird and the nesting form. The other, taken January 10, is the northern bird and should be expected to be found only in winter.

NORTHERN HAIRY WOODPECKER (**Dendrocopos villosus villosus**)

SOUTHERN HAIRY WOODPECKER (**Dendrocopos villosus auduboni**). There are three specimens from Shelby County. Of these only one bird, a male taken at Germantown on December 4, 1943, is placed with the northern birds. However it is intermediate, as the black markings are not as prominent as those of birds from the north. The other specimens, both females, are of the southern race and were collected on October 27, 1940, and June 10, 1944.

SOUTHERN DOWNY WOODPECKER (**Dendrocopos pubescens pubescens**)

NORTHERN DOWNY WOODPECKER (**Dendrocopos pubescens medianus**). A study of the Downy Woodpecker indicates that **medianus** occurs only as a winter visitor, and that **pubescens** is the breeding form. Of fourteen specimens examined five are the southern form, and were taken in the summer. Two specimens, taken on May 6, 1940, and July 19, 1944, are typical **medianus**, but I suspect that here are specimens representing late and early migrants respectively.

SOUTHERN BLUE JAY (**Cyanocitta cristata cristata**)

NORTHERN BLUE JAY (**Cyanocitta cristata bromia**). The ten specimens present an interesting problem. First it is evident that the same population is not present throughout the year. There is an influx of birds from the north in the winter and from the south in the summer. Therefore, as should be expected, the population is a mixed one and intermediates are frequently found. The birds taken in the summer are, with the exception of one individual, the southern bird **cristata**. Some of these are intermediate, but they are placed with the southern birds largely because of their posterior coloration which is more purplish. A specimen taken on January 9, 1944, at Memphis has a large wing (132mm) but is placed with **cristata** on the basis of the reduced white markings of the wing and tail and the duller back. Oddly, the largest bird in the series is a male taken July 24, 1941, at Germantown, but in addition to its large size it possesses the large white markings on the wings and tail, and is placed with **bromia**.

SOUTHERN BROWN CREEPER (**Certhia familiaris nigrescens**). The three Creepers in this collection are all referred to the southern form.

OHIO HOUSE WREN (**Troglodytes aedon baldwini**). There is only one specimen of House wren from Tennessee in the L. S. U. collection. It was reported, in error, as a specimen of **parkmanii** (MIGRANT, 1942, v. 13:3), but upon reexamination it was found to be a typical example of **baldwini.**

EASTERN WINTER WREN (**Troglodytes troglodytes hiemalis**)

SOUTHERN WINTER WREN (**Troglodytes troglodytes pullus**). Three of four specimens taken, all in December, are the southern bird **pullus.**

BEWICK WREN (**Thryomanes bewickii bewickii**)

APPALACHIAN BEWICK WREN (**Thryomanes bewickii altus**). Only one specimen, a male taken January 24, 1942, at Germantown, is referred to **altus.** There are three specimens of **bewickii** in the collection.

NEWFOUNDLAND ROBIN (**Turdus migratorius nigridus**). Two specimens of Robins are typically the large, black-backed race from Newfoundland. Both were taken in migration on February 7 and 12, 1944, at Memphis and both are males.

WESTERN OLIVE-BACKED THRUSH (**Hylocichla ustulata almae**). This race appears to be more common in spring migration at Memphis than would the eastern form **swainsoni.** Of ten specimens of this species from Shelby County, six are the grayer western form. They occur together in migration as specimens of both races have been taken on the same day in the same woods.

WILLOW THRUSH (**Hylocichla fuscescens salicicola**). This race occurs uncommonly during migration. Of six Veerys taken in Shelby County only one, a female taken at Mud Lake on May 1, 1943, could be identified as **salicicola.**

WORM-EATING WARBLER (**Helmitheros vermivorus**). A specimen taken at Egypt on June 29, 1944, constitutes an interesting record. I do not believe that it represents a breeding bird as the river bottom in which it was found does not present the same breeding environment with which the species is associated in central Tennessee or about my home now in north Louisiana. The specimen was in poor plumage due to molt and wear. I consider it to have been a late summer visitor or an abnormally early migrant.

NORTHERN WATER-THRUSH (**Seiurus noveboracensis noveboracensis**)

GRINNELL WATER-THRUSH (**Seiurus noveboracensis notabilis**). Fourteen specimens of this species are in the present collection. From these only five may be called **noveboracensis** with certainty. Four specimens are intermediate and it is best not to name them. Both races occur in the spring and in the fall, and appear to occur in about equal numbers.

MOURNING WARBLER (**Oporornis philadelphia**). A male taken at Lucy on August 19, 1944, is our earliest fall date for this species. The bulk of the fall migrants of this species pass through in the latter part of September and in October.

RED-EYED TOWHEE (**Pipilo erythrophthalmus erythrophthalmus**)

ALABAMA RED-EYED TOWHEE **Pipilo erythrophtalmus canaster**). Not long ago the Towhee was unknown in Shelby County in the summer (Coffey, 1941) although it was of common occurrence in the winter. During the past decade the Towhee has moved into the area where heretofore a hiatus existed during the summer months; and though admittedly local and uncommon in the summer at present, it is being found more frequently and in increasing numbers. A taxonomic study of the few specimens in the present collection proved very interesting. From these it is evident that the winter population is composed entirely of birds of the **erythrophthalmus** race which is to be expected. Two summer birds were collected on June 27, 1944, near Raleigh at locations several miles separated. Both specimens are somewhat intermediate; one breeding male was in company with a female which was not secured, and has the dark flanks and large tail spots of the northern race, but also has the large thick bill of the southern bird. There is another bird in the collection that is similar —a male taken at Germantown on May 12, 1943. The other specimen taken at Raleigh, another male, can be placed definitely with the southern bird and has the distinctly lighter flanks and chunkier bill. Dr. Wetmore (1939) identified a specimen taken on April 8 at Frayser, north of Memphis, as **erythrophthalmus** and assumed at the time that it was a breeding bird. Birds taken at Hickory Withe by the National Museum Party on April 12 and 15 were also identified as the northern race. In outlining the distribution of the two races in Tennessee Dr. Wetmore considered the birds ranging from Waynesboro east as being representatives of the race **canaster** based on specimens taken in May. The specimens taken in west Tennessee were identified as **erythrophthalmus** based on specimens taken in April. It is doubtful that these April birds were breeding birds. Migrant Towhees occur regularly in the Memphis area as late as May 8, and, therefore, it seems unlikely that birds taken in April in west Tennessee represent a breeding population; rather, they represent migrants.

Lowery (1934) pointed out that since the time of Audubon the southern form, **canaster**, has extended its range westward into Louisiana, and it is not inconceivable that a similar westward movement by birds of this race is taking place at this time into west Tennessee. It is probable that the birds that have come into Shelby County in the summer have moved into the area from the east as birds taken in the County are similar to those found at Waynesboro.

EASTERN GRASSHOPPER SPARROW (**Ammodramus savannarum pratensis**) WESTERN GRASSHOPPER SPARROW (**Ammodramus savannarum perpallidus**). The eastern bird is the breeding form, and it is also found rarely in the winter. The western bird occurs only as a migrant, specimens being taken in the Ensley-Darwin bottoms on May 31, 1942, and at Mud Lake on May 1, 1943.

CASSIAR JUNCO (**Junco hyemalis cismontanus**). Dr. Alden Miller identified a specimen of this race which nests in western Canada, when he examined some of the Juncos in the collection of the L.S.U. Museum of Zoology. It is a female taken at Germantown on December 5, 1942.

ALASKAN LONGSPUR (**Calcarius lapponicus alaskensis**). There is one specimen in the series of Lapland Longspurs from Shelby County that is referable to this pale race. It is a male taken at Memphis on December 24, 1940.

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HODGE, LA.

WINTER BIRDS OF A CATTAIL MARSH

By THOMAS A. IMHOF

Cattail marsh is a rare vegetation type near Birmingham, Alabama. The topography here is too steep, and therefore most streams run rapidly through narrow ravines. Such marshes as do exist probably are not climax, for black willow, buttonbush, and eventually tupelo succeed in becoming the dominant plants. It seems almost a paradox to say that man made a marsh, but such is the case and here is its story.

Village Creek near Birmingham was dammed to form Bayview Lake to assure a source of industrial water for cooling steel furnaces and rolling mills in nearby Fairfield. On Camp Branch, just above its junction with Village Creek, lies Edgewater Coal Mine and Mining Camp. The washings from the coal mine and silt from eroded garden plots in the mining camp filled in the lake to form a marsh of approximately forty acres in extent.

Parts of this marsh are less than three years old, the build-up having been rather rapid. At present the steel company which owns the land has taken drastic anti-erosion measures, so there is doubt that the marsh will expand appreciably. Encroaching willows, buttonbush, elder, river birsh, etc., threaten the young marsh. Due to its transient nature, it may be well to record something of its bird life while there is a chance.

The birds mentioned below wintered in this cattail marsh, and it is reasonably certain that they would not have done so unless the marsh was there. (In parentheses after the name is first their previous status in Birmingham, and then their status in Alabama after Howell ("Birds of Alabama," 1928).

VIRGINIA RAIL. (One record, Spring 1934. Several records in Howell from three localities, only one away from the coast, all in September and October.) In this marsh, two birds were present January 3 to June 5, 1949, and from Dec. 1, 1949, to at least March, 1950, there were at least six birds present. These birds were most frequently heard calling in the marsh between dawn and sunrise and between sunset and dark and also on very cloudy days. The rhythm of the call was very similiar to the Clapper Rail with which the writer is very familiar. As with the Clapper Rail, when one bird began to call, other birds from different parts of the marsh would chime in.

SORA. (Two records from Birmingham, August and September. For Alabama it is a common spring and fall transient in certain localities with the nearest approach to a winter record being one shot on Coffee

Island in Mobile Bay, December 2, 1916.) One to three Soras were recorded in the marsh from September 22 to October 27, 1949. One of two birds were recorded December 15, 1949, to March, 1950. On several occasions these birds were seen to futter momentarily above the cattails, and also on two occasions they were flushed. Usually, however, just to check their presence stones were plunked into the marsh, and if one landed close enough to a Sora and made a loud enough splash, there would be a loud, sharp 'geeek' in response. There is every reason to believe that some of these birds were present in November.

LONG-BILLED MARSH WREN. (In Birmingham, a fairly common spring and fall transient: one bird wintered in 1948-49. There are only three records in Howell away from the coast; they are in April, May, and October, none for Birmingham.) On May 2, 1949, the unprecedented number of six were seen and heard singing in three localities around Birmingham; two of these were seen in this marsh. One or two birds have been frequently seen from September 27, 1949, up to March, 1950. These two wintering birds were seen most frequently late in the afternoon when they could be seen and heard scolding in the deeper parts of the marsh. It is probable all of these birds are Prairie Marsh Wrens (**T. p. iliacus**) for the birds seem paler than the redder Long-bills of New York and the smaller, darker Marian's of the Gulf Coast.

YELLOWTHROAT. (Common summer resident, uncommon winter resident; one to five birds around Birmingham nearly every winter. The only winter record away from the coast in Howell is that of a bird at Coosada, February 7, 1878.) Two birds, at least one a male, spent this past winter, having been first noted December 24, 1949, and still being present in March. These birds remained in the cattails, and were never noted in the nearby shrubbery as they are in the summer.

BLACKBIRDS. (The species mentioned below are common winter residents throughout the state.) Every winter, at least since 1946, there has been a blackbird roost in the marsh. Numbers have been comparatively small until in October and November, 1948, when there were at least 450 Redwings and 35 Rusty Blackbirds. In March, 1949, 325 Redwings and one Grackle used the roost. This past winter numbers steadily built up from 250 Redwings and 35 Cowbirds in October until on November 20 there were at least 800 Redwings, 150 Grackles, and two Rusties in the roost. On December 1 there were five Redwings and four Rusties around. Someone had apparently broken up the roost. It recovered, however, in late January, 1950, so that on February 28 there were 750 Redwings and 35 Rusties in the roost. Three Brewer's Blackbirds had been seen with that same number of Rusties two miles from the roost, although they were never noted in the roost. At last count, March 13, 1950, there were 360 Redwings and 20 Cowbirds.

SWAMP SPARROW. (Common winter visitant throughout Alabama.) Every winter this marsh has its complement of Swamp Sparrows, at least 25 individuals.

Although there is no apparent connection with the marsh, a wintering House Wren spent the period from January 28, to February 6, 1950, in bordering river birch and tangles of dead kudzu. Other interesting birds recorded in or near the marsh in winter include Pied-billed Grebe, Great Blue Heron, and Wilson's Snipe.

The effect of the marsh on the local wintering population is best measured by comparing the status of these birds in the rest of the Birmingham area. Of interest is the recent attention given in "Audubon Field Notes" to the winter distribution of both the Sora and Virginia Rail, pointing up the almost complete lack of inland records for the southeastern States.

307 38TH ST., FAIRFIELD, ALA.

THE ROUND TABLE

A SUMMER RECORD OF THE COMMON LOON IN THE CUMBERLAND PLATEAU, TENN.—On August 2, 1950, while on vacation I stopped at Meadow Park Lake six miles west of Crossville, Tenn. The caretaker, finding I was interested in birds, asked if I could tell him what kind of bird was visiting the lake. He told me the story of the bird: In February this bird had arrived and soon found that it could get its meals from fishermen who used minnows; it would locate these fishermen and then dive and strip the hook. Once it was caught but released.

The next day when I was fishing, a Common Loon surfaced within fifteen feet of the boat, and field glasses were not needed tho I used them. The checkered back, thick bill, and black head were clearly seen. I believe that this is the first summer record for this bird in Tennessee.—KILIAN ROEVER, Route 2, Jackson, Tenn.

NOTE. A Loon remained at Radnor Lake near Nashville, Tenn., thru the spring of 1933 until July 10, when it was found in a dying condition (MIGRANT, 1935. v. 6:70).—Ed.

FIRST RECORD OF SNOWY EGRET IN NORTHEASTERN TENNESSEE.—On August 23, 1950, Mrs. L. R. Herndon and I drove to Roan Creek in Johnson County, at the point where Roan Creek runs into Watauga Lake. We had just seen the first American Egret and immature Little Blue Heron of the fall season when another small white heron flew from a wet, brushy spot very close to us. We immediately noticed the yellow feet as contrasted with the dark feet of the Little Blue seen only minutes before, but it was difficult to believe that it could be a Snowy Egret. On Sept. 3, however, Dr. L. R. Herndon and I made a prolonged observation of two Snowy Egrets busily jumping, pouncing, and stirring the mud in their efforts to find food. At this time the yellow feet and eye mark were plainly seen as the birds allowed a closer approach. These individuals were seen within a few yards of the original spot described. On or about August 23, Steven Russell of Abingdon reported by letter the presence of a Snowy Egret at Saltville, Virginia. It was not there on Sept. 3 and may possibly be one of the two seen that day at Roan Creek. —MRS. E. M. WEST, Piney Flats, Tenn.

MIGRATORY AND NON-MIGRATORY PEREGRINE FALCONS IN TENNESSEE.—In looking over the reports of the Peregrine Falcon **(Falco peregrinus)** in the pages of the first seventeen volumes of THE MIGRANT (1930-46), I felt reasonably confident of separating out two major types of occurrences: those of resident birds, and those of birds of passage. Resident birds are those definitely associated with a particular eyrie, and to these may be added those which by time and place of occurrence probably are breeders. Birds of passage are those which by time and place of occurrence may be presumed to be only temporarily in Tennessee.

Of the approximately seventy records, of over one hundred birds, mentioned in the pages of THE MIGRANT, fully half of the records and about seventy birds are breeders; the observations were made from March thru June. There are naturally many repeats, and there are fewer than a dozen eyries referred to.

A second group of records are those in the Christmas Census lists; here are at least seven records involving eleven birds at eyries, indicating that these birds are permanent residents. There are several records at eyries in February and September also referring to permanent resident birds.

The third group of records are probably representative of falcons that are migrants in Tennessee. The most significant of these is the series of records gathered by Coffey and his colleagues at Mud Lake near Memphis. Falcons have been recorded there in six different years and two birds at once in 1945. The records occur in September in five years, with one or more observations in late August, one record in November, and one on December 24, 1939. In other parts of the State (Nashville, Norris Lake, Alcoa), other probable migrant records occur. Of a total of about 24 migrant birds, 8 are from Nashville, 8 from Memphis, 4 from the Knoxville region, and 4 from the State at large. The single most convincing record is that of Todd (MIGRANT, 1943, v. 14:17) of a bird that had been banded as a migrant in Racine, Wisc., on Oct. 1, 1941, and shot near Murfreesboro, Tenn., on Nov. 14, 1942. Seventeen birds occurred in September thru November, with the largest group (11) in September; 1 occurred in December, 2 in January, 2 in April (one of these is a 1925 record) and 1 in May.

The large number of records in the fall and few in the spring fits in well with observations along the Atlantic Coast, where the detailed records kept by Mr. Alva G. Nye, Jr., of Washington, D. C., indicate a maximum in early October. The number seen in spring is small because of a scattering of the flight then and probably because the majority are lost or killed before spring. Probably not more than one in ten of the young that leave the nest ever become breeding adults. It is clear from the above comments that the most likely time to see a Peregrine Falcon except at the eyrie is in late September or early October. The records of Coffey along the Mississippi seems to show that the flight there is earlier than the coastal flights of the Atlantic. — WALTER R. SPOFFORD, Syracuse Medical College, Syracuse, New York.

LEAST FLYCATCHER NESTING NEAR ELIZABETHTON, TENN. — On May 7, 1950, John H. Bailey, Frank H. Barclay, and the writer observed a Least Flycatcher carrying nesting material and arranging it in a pine tree about twenty feet above the ground. We saw the bird make several trips with nesting material and place it in the loosely woven structure suspended in the fork of a practically horizontal branch. It looked as if the structure had only recently been begun. The location was in the village of Hampton, near Laurel Creek, in a small grove of coniferous and deciduous trees. The nest was being built over a highway with open fields and a small orchard across the road from the grove. The elevation at this location was 1800', which appeared to be a rather low altitude for the nesting of this species.

During the past several seasons this species has been noted in this area during the spring migration, but never suspected of breeding there until by chance this observation was made. At least one of the birds was singing which simplified the identification. The area was visited again on June 3 and this species was singing in the vicinity of the nest and across the road about three hundred yards away. On June 18 it was again heard singing there. On July 16 Mrs. Herndon, Mrs. West, and the writer visited the area again and found a pair of Least Flycatchers within one hundred yards of the nesting site; one bird was singing and observed chasing the other. The nest was not observed after the initial building activities, and no young were ever identified; because of the nest building activities, however, and their long stay in this area, I believe that these Flycatchers bred at this comparatively low altitude.—LEE R. HERNDON, Elizabethton, Tenn.

FIRST RECORD OF SWAINSON'S WARBLER IN THE GREAT SMOKY MOUNTAINS.—A Swainson's Warbler **(Limnothlypis swainsonii)** was first heard singing and later seen by me on June 8, 1950, in the Great Smoky Mountains National Park. The exact location is on the trail from Cade's Cove to Gregory Bald at an elevation of 1900 feet. The bird was singing from a tall, tangled undergrowth of rhododendron that bordered the trail and stream. Park Naturalist Arthur Stupka tells me that this is the first record of this species in the Smokies. It has previously been reported from East Tennessee from near Athens (MIGRANT, 1934. v. 5:3), from Shady Valley in Johnson Co. (Wetmore. 1939. Proc. Nat. Mus., 86:221), and from Limestone Cove and Rock Creek near Erwin (MIGRANT, 1941. v. 12:29-30). —JAMES T. TANNER, Dept. of Zoology, Univ. of Tennessee, Knoxville.

WINTER RECORD OF SYCAMORE WARBLER AT REELFOOT LAKE.

—On February 26, 1950, at Reelfoot Lake in the northwestern part of Tennessee, I collected a Sycamore Warbler **(Dendroica dominica albilora)**. This is the Mississippi Valley form of the Yellow-throated Warbler **(D. d. dominica)**. The bird, a female, is now in the Museum of Zoology at Louisiana State University where it was subspecifically identified by Dr. George H. Lowery, Jr. The bird was feeding in the sycamore trees over the water at the spillway.—R. DEMETT SMITH, P. O. Box 55, East Station, Memphis, Tenn.

WESTERN MEADOWLARK NEAR MEMPHIS, SECOND RECORD FOR TENNESSEE.—There is but one previous record for the Western Meadowlark **(Sturnella neglecta)** in Tennessee (MIGRANT, 1943. v. 14:77). On March 11, 1950, at the Shelby County Penal Farm, about four miles east of Memphis, Mrs. Floy Barefield and I heard and identified the song of the Western Meadowlark. During the hour or so we were in this area the bird was continually singing. On the following day we returned with Brother i. Vincent and Miss Alice Smith and found not one but two singing birds of this species in the same field. Two days later I was unable to find them.

All four of us are thoroly familiar with the song, both from trips farther west and on several occasions when we have heard it in Mississippi.—R. DEMETT SMITH, P. O. Box 55, East Station, Memphis, Tenn.

THE SEASON

MEMPHIS AREA.—The Spring migration seemed to be dammed up, then broke in a wave on April 22 and 23. Migration was again moderately heavy the last days of April and the first week of May. Twenty-three Bobolinks on May 25 were the last apparent transient individuals (2,000 on May 15, Hugh Tucker). Our Herons are now more commonly seen in spring than ever: 4 Little Blues were previously reported for Mar. 28 (Irwin) and the presence of 40 blue adults and 12 first-year adults on May 21 at a Lakeview pit would have been unusual in previous years. Wood Duck nests were reported at three places (two in city parks), while the Mississippi Kites were first seen in the parks April 26 (V. Julia). A pair of Broad-winged Hawks were first seen April 8 in Overton Park and remained, apparently to nest. A Broad-winged Hawk nest located at Germantown by Demett Smith is our first definite record close to Memphis. Two Virginia Rails (rare) were seen at Lakeview, Miss., April 16. Shorebird migration was poor as usual altho a favorable bar-pit reappeared after many years. On May 20 Demett Smith recorded eight White-rumped Sandpipers (1 collected) at Lakeview, Miss., the first since 1936. A fully adult Laughing Gull on May 7 by Smith and Tuliatos (May 8, Coffey) was the first Memphis record. Tuliatos saw a Caspian Tern (rare) on May 8 while the only Black Tern (usually fairly common) was reported on May 10 (BC). Six Black-billed Cuckoos were reported May 7, T.O.S. Field Day; apparently this species slips thru unnoted for the most part. An

Alder Flycatcher seen at Coffey Grounds and two by Demett Smith at Lakeview, Miss., May 20, constitute the second spring record; Smith collected a Yellow-bellied Flycatcher at the time but his Alders were over water. The swallow migration was almost poor. Two Tennessee Warblers appeared on schedule April 10 but this usually abundant transient was absent or uncommon until about April 26. A Blackburnian (April 25-May 25) was the last transient seen in Overton; previous late date for the species, May 24, 1931, at Camp Currier, Miss. A Black-throated Green near Parsons, Tenn., on May 27 was 16 miles from Natchez Trace S. P. where one was seen July 7, 1946, but was probably a delayed transient; the last in Overton Park was on May 8. A lone Indigo Bunting was seen on April 22 (8 days late); several flocks of fifteen to thirty each were along the Lakeview levee on April 29. There on April 16 Demett Smith noted six Vesper Sparrows and a Lark Sparrow (rare). Lincoln's Sparrow is considered a fairly common species with singers usually present at home, but this year only singles were seen,—April 30 and May 20 at Lakeview (RDS).

River stages were not favorable for the nesting of the Least Tern in this area as Mississippi River sandbars were under water until early August. Mud Lake has remained too high for either herons or shorebirds so the small shallow pits partly remaining supply the only records. "Peeps" seen at Lakeview, Miss., on July 16 included 34 Least, 1 Semipalmated, and 2 Western Sandpipers. In the following month the proportion of Semipalmateds increased but no more of the rare Westerns were seen. Pectoral Sandpipers appeared in small numbers Aug. 12. The first Upland Plover was heard July 14 over town and one or two were seen and heard at the Penal Farm thereafter. A flock of thirteen near Neuhardt, Ark., Aug. 13, was the only one found. Small numbers of herons (up to fifty each of American Egrets and Little Blue Herons) were seen at Horseshoe Lake, Ark., on Aug. 13 and also at Mud Lake thru Aug. 27; forty-four Egrets (and thirty Wood Ducks) were there the latter date. After Labor Day, rains had put the shore line back into the trees and only one or two of each species could be found. Thus this was one of our poorest seasons at Mud Lake in twenty years

Two Caspian Terns were seen at Arkabutla Reservoir (Miss.) on Sept. 4. (Tuliatos & Marcus) and one at Memphis wharf on Sept 10 (Coffeys). Flocks of swallows have been small; several of Rough-wingeds totaled ninety-five on July 16 and similar flocks with other species appeared from August to the present. Tree Swallows were less common and Banks and Barns occasional; the bulk of Tree Swallows should be later.

A Short-billed Marsh Wren appeared Aug. 12 at Lakeview, Miss. (Keeton). A Black and White Warbler was seen on June 14 at Hickory Flat, Miss. (Barefield), at the eastern edge of the river area where the species is almost absent.

By mid-July large flocks of local Cowbirds were seen, outnumbering Starlings and more so the Grackles and Red-wings. A Scarlet Tanager near Pine Top, June 12, was the only one found on searches besides the very local ones (since 1944) at Cub Lake, Natchez Trace State Park. A Painted

Bunting was noted July 30 singing (late) with immatures (late). The very local Grasshopper Sparrows continued at Field 21 and the Penal Farm. — BEN B. COFFEY, Jr., Memphis.

KNOXVILLE — Unusual spring records for Knox County this year were an American Egret which remained in one area on Loudon Lake near Knoxville from May 19 to June 7, a Little Blue Heron reported on April 18 (Bob Hornsby), and a Least Bittern seen on June 23. A Blue Grosbeak was seen on May 7 by J. C. Howell. A single Connecticut Warbler was seen by Mrs. R. A. Monroe at her home on May 18; usually a bird of this species stays around her home for a few days each spring, but this year it was seen only on one day.

The last day on which both White-crowned and White-throated Sparrows were recorded this spring, a single individual in each case, was May 15.

A Woodcock with young, an unusual breeding record, was found at Powell Station, northwest of Knoxville, on April 22, and a single bird was observed there on May 20. Barn Swallows have been observed in nesting activities in a few scattered places in the County, altho there are no large colonies. This year for the first time House Wrens were found nesting in Knox County; singing birds were found by J. C. Howell late in May, and on July 4 two nests, in the same general locality, were found.

Unusual records that are hard to evaluate are of a Marsh Hawk and a Virginia Rail seen on July 16 (Crouch and Yambert). Two Virginia Rails were seen in the same locality on April 22, but none in between those times.

The first fall sandpipers observed were on August 20: 3 Solitaries, 1 Spotted, and 1 Lesser Yellowlegs. To date this has been a poor year for sandpipers and also for herons because the rivers and lakes have been high leaving little exposed mud and shallow water. Other early fall migrants were Worm-eating and Canada Warblers on August 23 and Chestnut-sided Warbler on August 28.

Two interesting birds observed by several members of the Knoxville Chapter on the August 20 field trip were a Canada Goose and what was apparently an immature Blue Goose. The Canada Goose had arrived at John Dempster's farm on Stock Creek Embayment about July 10 and remained most of the time in a pasture bordering the water. The smaller goose had arrived about August 12. When seen on the 20th, it resembled an adult Blue Goose except for peculiar dark markings on the back of its neck and head.

Eighty-three species were identified on the Fall Field Day held on September 17. These included a single Northern Waterthrush and ten Savannah Sparrows, making an early date for fall arrival of the latter. — JAMES T. TANNER, Knoxville.

GREENEVILLE — Dickcissels, Horned Larks, and Prothonotary Warblers were present in Greene County during the spring and early summer of 1950. Altho nests of none of them were found, the presence of pairs of each species in the same localities over a period of weeks indicate a high probability of nests. The Dickcissels, first seen on May 18, occupied a stretch of roadside electric line until June 5. There the male sang regularly and the female was occasionally present. The cutting of a barley field adjoining the road apparently terminated their stay. Two Horned Larks were found throughout May and June in a restricted area of a pasture at the foot of Bluff Mountain. Mr. and Mrs. Alfred Irvine reported that Prothonotary Warblers spent the nesting season near the White-Irvine Mill on the Nolichucky River. Determining the number of pairs and locating nests of these warblers, should they return, is expected to become an interesting activity for 1951. A fourth nesting probability is that of a Bachman's Sparrow. On June 11 in a newly seeded hillside pasture a male Bachman's Sparrow sang from perches in two old peach trees. At intervals he flew down into a clump of cut-over blackberry briars. His interest there was found to be not the expected nest but a young Bachman's Sparrow.

The hour of egg laying for one Nighthawk was found to be between 2:00 p.m. and 5:40 p.m. on May 21. At the earlier hour a Nighthawk was flushed from one egg, which was lying in a faint depression in the shale. Some protection was afforded the egg by its having been deposited in the midst of a scattered pile of weathered cedar branches. When at 5:40 the Nighthawk was again flushed, a second egg was found to have been laid. The nest was thereafter visited at intervals of ten days. Tracks and crushed shells then indicated that the nest had been destroyed by a wandering cow.

Among late nestings appears to be that of a Yellow-billed Cuckoo; on August 21 a young bird was found, its feathers as yet unsheathed. A Ruby-throated Hummingbird nest was last seen to have young in it on August 9. In a Dove nest on September 9 the young seemed ready to leave.

Blue-gray Gnatcatchers had begun wandering by early July. This year the first individual known to be off nesting territory was seen on July 4, in the mimosa tree of a lawn far enough from woodlands to have had previously this season no Blue-gray Gnatcatchers present. From that date thru September 8 this species has been abundant and conspicuous in its wanderings. On August 7 a Blue-gray Gnatcatcher was heard singing. Their most abundant song occurs early in the breeding cycle, and I have not found fall singing for this species described in the literature. Unexpected and arresting, this perfect, lilting, small song was delivered in snatches as the singer moved about, pausing momentarily while singing. Among other species apparently wandering is the Cedar Waxwing, eight of which were see September 5, not having been seen previously in this woodland this summer.

An American Egret was seen wading in Lick Creek on August 4. Evidence of migration was noted by Mr. C. M. Shanks at sunset on August 23, when he saw between four and five hundred Rough-winged Swallows on electric wires east of Sevierville. On Sept. 8 a Black-throated Green Warbler and a Redstart were seen. A Marsh Hawk was seen on August 16 by Mr. J. B White, and another on Sept. 8 by Richard Nevius.

Members of the Greeneville Chapter spent June 14 in the Smokies. Mr. Shanks and Mr Pickering identified a Golden Eagle from the highway immediately below Newfound Gap. —RUTH REED NEVIUS, Greeneville.

KINGSPORT — Spring and summer have been cooler and rainier than usual in Sullivan County, altho the total rainfall for the month of July was 20% below normal The members of our chapter agree that birds have been more numerous and more active this season. Migrating warblers were more abundant and vociferous than usual. We had the Prothonotary, Tennessee, and Nashville Warblers for the first time this year. Twenty-six species of warblers were present on our spring census on May 14 and four others at other times. Of these latter the Palm, Wilson's, and Canada Warblers were all observed on May 15. The Prothonotary was the only one of our spring records which did not appear on or after the census day.

Barn Swallows and Purple Martins were more numerous than usual; there have been three new colonies of Martins this year.

The House Wren continued its upward trend, while Bewick's and Carolina Wrens held their own. One Long-billed Marsh Wren was observed by Steve Russell and myself on May 13.

The Ruffed Grouse is becoming increasingly rare; none were reported this year. Bob-whites on the other hand have prospered because of the establishment by a group of farmers of a large no-hunting area. In this area a Blue Grosbeak was seen at close range by me on April 30. Also in this area Vesper Sparrows have been observed regularly during May thru August for three consecutive years, but this year they disappeared early in June. Bachmans Sparrows sang almost every day this summer until the last week in August; they were reported from at least eight locations.

Herons and sandpipers were more numerous this year, probably becase of the fish hatchery established here a few years ago. — THOMAS FINUCANE, Blountville.

WHAT CAN THE CHAPTERS DO?

Sometimes nothing can be blanker than a program chairman's mind, —when he is trying to think of programs and activities that will be interesting to his chapter. And yet when your editor wrote to members of the various T.O. S. chapters requesting suggestions and ideas that might be incorporated into a short article on this subject, he received a goodly supply of them. So there are things to do, and the purpose of this article is to summarize them so that the various chapters can get ideas that will enliven their programs and interest their members. It is worth noting that the greatest variety of suggestions, or rather a summary of things done, came from the Memphis chapter, the largest in T.O.S and one which has been very successful in interesting younger people. This list was sent in by Miss Nelle Moore, President of the Memphis chapter. Mr. A. F. Ganier also wrote a good summary of what the Nashville chapter has found interesting

Some chapters meet twice a month, some once; some in the summer, some not. Most seem to have a program chairman, frequently the Vice President, or committee, who plan the meetings, select topics, and delegate persons responsible for each meeting. In addition to this, planning for the Memphis chapter is done in an executive meeting held in late summer. Here follows a list of some program topics that various chapters have found interesting: bird migration, the woodpeckers (and similar groups of birds), bird feeders, reports of breeding bird censuses, movies—especially by local members, bird slides flashed on the screen for practice identification, slide sharing programs wherein several members each show a few slides of their own, travel talks, conservation—by local sportsmen or conservationists, "summer roundup' from vacationists, book reviews (every second program of the Nashville chapter is a review of a book or paper), bird banding. This list is far from complete, but serves to provide examples. In addition to these regular meetings, the Elizabethton chapter has regularly held an anniversary dinner, with a guest speaker, and the Memphis chapter held last year an anniversary dinner which may become an annual custom.

Another feature of the meetings of some chapters is a summary of the month's bird observations. At Nashville this is done in a round-table discussion that follows the regular program. The Knoxville chapter has prepared a mimeographed sheet ruled into spaces for each day of the year, and a single sheet is used for each species. At each meeting the "roll" is called and records for each species can be entered in the space for the appropriate day. In this way a permanent record is being kept. It has proved especially useful in emphasizing facts that were previously overlooked, such as the early disappearance of some species in the summer. It also lends interest to the meeting as everyone can find what birds have been present during the past month.

As a suggestion for extra activities, the following is quoted from the letter of Miss Nelle Moore (Memphis): "We hope to make available to teachers, club workers, scout leaders, etc., information as to what birds are most commonly seen here at the various seasons. This is needed very much in schools where a unit on birds is undertaken and the teacher herself does not know these facts about birds in her area"

Field trips are an important activity of each chapter. All chapters, as far as is known, participate in a Christmas Count, a Spring Field Day, and a Fall Field Day. In Nashville an attempt is made by each participant in the Christmas Count to become familiar with his territory ahead of time, a procedure which could well result in a larger list. In addition to these, another annual trip held by the Memphis chapter is one to Arkansas and Mississippi for shorebirds. The Greeneville and Elizabethton chapters plan trips to the mountains to observe hawk migration every week during part

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of the fall season. Besides these special trips, most chapters hold field trips once or twice a month, a half day or full day in duration.

It appears from examining the accounts of the field trips of the different chapters that the most interesting are those made for a special purpose, to see shore birds, hawk migrations, waterfowl, etc.

Ruth and Richard Nevius of Greeneville write " . . those activities that have thus far aroused most interest for us have involved our participation in projects that other chapters are also pursuing." This suggests the need for more state-wide projects. Anyone having any ideas for such projects should send them in to the chairman of the T.O.S. planning committee, Dr. Joseph Howell (Dept of Zoology, University of Tennessee, Knoxville).

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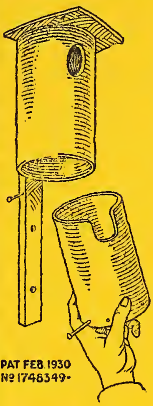

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BIRDS OF CARTER COUNTY, TENNESSEE

By LEE R. HERNDON

The following annotated list of birds covers those observed in Carter County, Tennessee, by members and guests of the Elizabethton Chapter of the Tennessee Ornithological Society since February, 1944. Carter County is near the northeastern corner of Tennessee. It varies in elevation from about 1500 feet to about 6300 feet on Roan Mountain. Watauga Lake, which is mentioned frequently in the following list, is a large artificial reservoir whose impoundment began on December 1, 1948. A description of the area may be found in an article entitled "A Survey of Upper East Tennessee Birds and their Habitats," by Fred W. Behrend (THE MIGRANT, 20: 26-32. 1949). Included in the following annotated notes on many species are the extreme dates on which records of the species have been made. The initials used in the list refer to the following observers: F.W.B.—Fred W. Behrend; J.C.B.—J. C. Browning; L.B.—Louise Browning; E. E. Ebbie Evans; T.W.F.—Thomas W. Finucane; L.M.H.—Lois M. Herndon; L.R.H.—Lee R. Herndon; L.R.H. jr.—Lee R. Herndon, jr.—J.C.H.—Joseph C. Howell; W.F.P.—William F. Pearson; M.S.—Margot Schlein; E.T.—Evan Thomas; M.T.—Marjory Thomas; E.H.W.—E. H. Watson; A.H.W.—Adele H. West; E.M.W.—Eugene M. West.

ANNOTATED LIST

COMMON LOON **(Gavia immer).** Rare Spring and Fall migrant 1947 and 1948 on Watauga River and Lake Phillip Nelson. Fairly common on Watauga Lake in Spring and Fall since impounding. Apr. 16 to May 7 and Nov. 2 to Dec. 15.

RED-THROATED LOON **(Gavia stellata).** On November 6, 1949, five observers (A.H.W., E.M.W., T.W.F., M.S., L.R.H.) in a cabin cruiser on Wautauga Lake saw a small loon that was very light underneath and the edges of the feathers appeared to have light edgings. It was identified as a Red-throated Loon. This was near the old site of Fish Springs. Further up the lake near old Butler (in Johnson Co. just across the Carter Co. line) several other Loons, both Common and Red-throated Loons, were found, providing an opportunity to compare the two species. In all five to six Red-throated Loons were observed, some at fairly close range, and three or four Common Loons. More Red-throated Loons were observed on April 6 (1), April 22 (8), and May 7 (1), 1950, near old Butler (A.H.W., E.M.W.). This appears to be a first record for the State.

HORNED GREBE **(Colymbus auritus).** Very rare in Fall until Watauga Lake was impounded. Fairly common transient, Spring and Fall

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on Watauga Lake. Feb. 25 to Apr. 22 and Oct. 15 to Dec. 19.

PIED-BILLED GREBE **(Podilymbus podiceps)**. Fairly common migrant in Spring and Fall 1944 through 1948. Wintered in appreciable numbers on Watauga Lake 1949-1950. Probably breeding on Lake Phillip Nelson (3500') where observed throughout Summers of 1948 thru 1950. Two young each observed on July 24 and August 7, 1949. (F.W.B.)

DOUBLE-CRESTED CORMORANT **(Phalacrocorax auritus)**. Extremely rare as only one pair has been observed in this area, from Nov. 30 to Dec. 18, 1948. (F.W.B., E.E., A.H.W.)

GREAT BLUE HERON **(Ardea herodias)**. Fairly common Spring and Fall migrant, more abundant in Fall, rather rare in Winter and early Summer.

AMERICAN EGRET **(Casmerodius albus)**. Fairly common Summer and Fall visitant, more common in late Summer and Fall. Extreme dates June 18 to Nov. 5.

LITTLE BLUE HERON **(Florida caerulea)**. Rare until Watauga Lake was impounded. Fairly common during Summer of 1949 on Watauga Lake. Extreme dates Apr. 12 to Sept. 3.

GREEN HERON **(Butorides virescens)**. Common Summer resident. Extreme dates Apr. 1 (1949) to Nov. 27 (1948).

BLACK-CROWNED NIGHT HERON **(Nycticorax nycticorax)**. Rare but regular Spring migrant. March 23 to May 6. Only one Fall record, bird found dead on Dec. 15, 1946 (L.R.H.).

AMERICAN BITTERN **(Botaurus lentiginosus)**. Extremely rare, only one bird recorded for the county on May 4, 1947 (L.M.H., L.R.H.), on County Farm.

CANADA GOOSE **(Branta canadensis)**. Fairly common and regular Spring and Fall transient. Feb. 26 to Apr. 3, Sept. 14 to Nov. 27.

MALLARD DUCK **(Anas platyrhynchos)**. Rare transient until Watauga Lake impounded, then fairly common Spring and Fall migrant. Jan. 14 to Apr. 10 and Oct. 16 to Nov. 22.

BLACK DUCK **(Anas rubripes)**. Fairly rare transient until Watauga Lake impounded, then fairly common Spring and Fall migrant. Jan. 1 to May 1 and Nov. 8 to Dec. 14.

GADWALL DUCK **(Chaulelasmus streperus)**. Very rare transient; first observed on Watauga River above Sycamore Shoals on March 20, 1949 (L.R.H.), several records since, particularly on Watauga Lake. Feb. 26 to Apr. 17.

BALDPATE DUCK **(Mareca americana)**. Regular and fairly common migrant, more abundant since impounding of Watauga Lake.

PINTAIL DUCK **(Dafila acuta)**. Very rare transient; Watauga River, Wagner's Island, Oct. 16, 1948 (E.E.).

BLUE-WINGED TEAL **(Querquedula discors)**. Fairly common migrant. March 16 to May 18; Sept. 9 to Nov. 29.

SHOVELLER DUCK **(Spatula clypeata)**. Uncommon but fairly regular migrant. Feb. 20 to Apr. 16, Nov. 1 to Dec. 22.

WOOD DUCK **(Aix sponsa)**. Fairly common migrant, Mar. 16 to Apr. 2, and Sept. 27 to Nov. 22. Few summer records, possibly breeding.

REDHEAD DUCK **(Aythya americana).** A pair seen on Watauga Lake above site of old Butler on the Watauga River prong, Nov. 6, 1949 (E.M.W. et al). One female observed on Wilbur Lake Mar. 12, 13, and 14, 1950 (E.E.).

RING-NECKED DUCK **(Aythya collaris).** Uncommon transient, Spring and Fall, until Watauga Lake was impounded, then common at times. Mar. 9 to Apr. 24, Oct. 16 to Nov. 27.

CANVASBACK **(Aythya valisineria).** One male observed at Razor Farm on Mar. 27, 1947 (F.W.B. et al).

GREATER SCAUP DUCK **(Aythya marila).** First positively identified on Wilbur Lake Mar. 10, 1950 (J.C.B., L.B.). Four birds identified by green head on Watauga River Mar. 26, 1950 (L.R.H.).

LESSER SCAUP DUCK **(Aythya affinis).** Fairly common migrant Spring and Fall, abundant after Watauga Lake was impounded. Mar. 12 to July 31, Nov. 11 to Dec. 22.

AMERICAN GOLDEN-EYE **(Bucephala clangula).** Rare transient Spring and Winter. Jan. 18 to Apr. 9; one fall record: Nov. 6, 1948.

BUFFLE-HEAD DUCK **(Charitonetta albeola).** Rare transient Spring and Fall. Mar. 20 to Apr. 27, Dec. 14 to Dec. 24.

RUDDY DUCK **(Oxyura jamaicensis).** Very rare transient in Fall. Oct. 23 to Nov. 27.

HOODED MERGANSER **(Lophodytes cucullatus).** Fairly common migrant, Spring and Fall, rare Winter resident. Jan. 8 to May 1 and Nov. 22 to Dec. 20.

AMERICAN MERGANSER **(Mergus merganser).** Very rare transient, having been recorded on Watauga River in Elizabethton Feb. 19, 1947 (L.R.H.) and Nov. 27, 1948.

RED-BREASTED MERGANSER **(Mergus serrator).** Uncommon migrant Spring and Fall until Watauga Lake was impounded, then fairly common at times. March 17 to May 1 and Nov. 29 to Dec. 24.

TURKEY VULTURE **(Cathartes aura).** Uncommon permanent resident, less common in Winter.

BLACK VULTURE **(Coragyps atratus).** Very rare Summer visitant.

EASTERN GOSHAWK **(Astur atricapillus).** Very rare transient in Fall: Elizabethton golf course Oct. 1, 1944 (L.R.H.); Siam bridge Sept. 28, 1947 (L.R.H. et al); Wilbur Lake Sept. 25, 1948 (L.R.H., E.T)..

SHARP-SHINNED HAWK **(Accipiter striatus).** Rare permanent resident; however, we have no July records. Fairly common migrant in Fall.

COOPER'S HAWK **(Accipiter cooperii).** Fairly common permanent resident; common Fall migrant.

RED-TAILED HAWK **(Buteo jamaicensis).** Rare permanent resident; common Fall migrant.

RED-SHOULDERED HAWK **(Buteo lineatus).** Rare permanent resident.

BROAD-WINGED HAWK **(Buteo platypterus).** Very rare Summer resident; occasionally abundant Fall migrant. Apr. 25 to Oct. 19.

BALD EAGLE **(Haliaeetus leucocephalis).** Very rare transient. Hump Mountain Sept. 7, 1949 (F.W.B. and L.R.H.); Franklin Club March 14, 1948 (L.R.H. et al).

MARSH HAWK (**Circus cyaneus**). Rare Spring and Fall migrant. Feb. 15 to May 13 and Aug. 14 to Dec. 7.

OSPREY (**Pandion haliaetus**). Uncommon but regular Spring and Fall migrant. March 26 to May 22 and Aug. 18 to Oct. 22.

DUCK HAWK (**Falco peregrinus**). Rare Summer resident. Probably nesting in the Doe River Gorge; pair observed there May 5, 1946 (L.R.H.). May 5 to Oct. 9.

PIGEON HAWK (**Falco columbarius**). Extremely rare transient. One observed near Watauga Lake "Look-out" Dec. 5, 1948 (L.R.H.).

SPARROW HAWK (**Falco sparverius**). Common permanent resident, more common in Winter.

RUFFED GROUSE (**Bonasa umbellus**). Fairly common permanent resident.

BOB-WHITE (**Colinus virginianus**). Fairly common permanent resident.

SORA RAIL (**Porzana carolina**). Very rare transient, Spring and Fall. May 6 and 7 and Oct. 7 and 8 (F.W.B.) one summer record, a bird found dead in Elizabethton Aug. 28, 1948 (A.H.W.).

COOT (**Fulica americana**). Fairly common transient, more abundant and for longer periods on Watauga Lake. Extreme dates Oct. 10 to June 7.

SEMIPALMATED PLOVER (**Charadrius semipalmatus**). Extremely rare transient. Two records, one individual each, May 5, 1946 (L.M.H.) and May 5, 1948.

KILLDEER (**Charadrius vociferus**). Fairly common permanent resident.

AMERICAN WOODCOCK (**Philohela minor**). Rare permanent resident.

WILSON'S SNIPE (**Capella gallinago**). Rare Winter resident and Fall migrant but rather abundant Spring migrant. Extreme dates Sept. 27 to May 3.

UPLAND PLOVER (**Bartramia longicauda**). One individual observed within the city limits of Elizabethton Apr. 19, 1950 (L.R.H.).

SPOTTED SANDPIPER (**Actitis macularia**). Fairly common migrant, Spring and Fall, Apr. 8 to June 6 and July 9 to Oct. 3.

SOLITARY SANDPIPER (**Tringa solitaria**). Fairly common Spring and Fall migrant, Apr. 6 to May 24 and July 18 to Oct. 2.

GREATER YELLOW-LEGS (**Totanus melanoleucus**). Very rare Spring migrant, May 1, 1948 (4) (J.C.B.).

LESSER YELLOW-LEGS (**Totanus flavipes**). Rare Spring and Fall migrant, Apr. 9 to May 3 and Aug. 1 to Oct. 20.

LEAST SANDPIPER (**Erolia minutilla**). Very rare Spring and Fall migrant. May 3 to May 13 and Aug. 21 to Sept. 11.

WESTERN SANDPIPER (**Ereunetes mauri**). Extremely rare Spring and Summer visitant. One observed at DePew farm May 2, 1948 (L.R.H.), another July 11, 1948.

HERRING GULL (**Larus argentatus**). Very rare Spring migrant until Watauga Lake impounded, then more common in Spring and Fall, Jan. 29 to May 13 and Oct. 27 to Dec. 10.

RING-BILLED GULL (**Larus delawarensis**). Very rare migrant until

Watauga Lake was impounded, then more common in Spring and Fall. Jan. 21 to May 13 and Oct. 4 to Dec. 5.

BONAPARTE'S GULL (**Larus philadelphia**). Very rare Spring and Winter visitant. Flock of fourteen seen at Lake Phillip Nelson Nov. 30, 1947 (F.W.B.). A pair observed in open field near Franklin Club in Elizabethton Dec. 25, 1948 (L.R.H.). One bird observed at Sycamore Shoals in Watauga River Apr. 15, 1949 (L.R.H.).

FORSTER'S TERN (**Sterna forsteri**). One individual observed west of island west of site of old Fish Springs on Watauga Lake Oct. 23, 1949 (L.R.H.). This bird was observed for several minutes thru 10x binoculars in good light at varying distances, finally coming almost directly overhead when the black spot around the eye and extending back toward the nape, but not uniting as in the Common Tern, was plainly visible.

COMMON TERN (**Stera hirundo**). Only two occurences: Sept. 10, 1949 (1) along Watauga River near Siam (L.R.H.); Sept. 2, 1950 (40) on Watauga Lake west of island west of old Fish Springs (L.M.H., L. R. H.).

BLACK TERN (**Chlidonias niger**). Only one record for the county, two birds of the species observed west of island west of old Fish Springs site on Watauga Lake Sept. 2, 1950 (L.M.H., L.R.H.).

MOURNING DOVE (**Zenaidura macroura**). Abundant permanent resident.

YELLOW-BILLED CUCKOO (**Coccyzus americanus**). Uncommon Summer resident. Extreme dates Apr. 22 to Oct. 3.

BLACK-BILLED CUCKOO (**Coccyzus erythrophthalmus**). Rare Summer resident. Apr. 22 to Oct. 6.

BARN OWL (**Tyto alba**). One observed at County Farm Sept. 26, 1946 (L.R.H.).

SCREECH OWL (**Otus asio**). Common permanent resident.

GREAT HORNED OWL (**Bubo virginianus**). Very rare permanent resident.

BARRED OWL (**Strix varia**). Uncommon permanent resident.

WHIP-POOR-WILL (**Caprimulgus vociferus**). Common Summer resident. Extreme dates Apr. 6 to Sept. 11.

NIGHTHAWK (**Chordeiles minor**). Fairly common Summer resident. Abundant late Summer and Fall migrant. Extreme dates Apr. 24 to Oct. 12.

CHIMNEY SWIFT (**Chaetura pelagica**). Fairly common Summer resident. Abundant Spring and Fall migrants. Extreme dates Apr. 6 to Oct. 11.

RUBY-THROATED HUMMINGBIRD (**Archilochus colubris**). Common Summer resident. Extreme dates Apr. 23 to Oct. 5.

BELTED KINGFISHER (**Megaceryle alcyon**). Fairly common permanent resident.

FLICKER (**Colaptes auratus**). Fairly common permanent resident. Common transient in Spring and Fall.

PILEATED WOODPECKER (**Dryocopus pileatus**). Rare permanent resident.

RED-BELLIED WOODPECKER (**Centurus carolinus**). Rare permanent resident.

RED-HEADED WOODPECKER (**Melanerpes erythrocephalus**). Uncom-

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mon visitant from middle of January to middle of October. No November or December records.

YELLOW-BELLIED SAPSUCKER (**Sphyrapicus varius**). Fairly common Winter resident. Extreme dates Sept. 29 to Apr. 26.

HAIRY WOODPECKER (**Dendrocopos villosus**). Uncommon permanent resident.

DOWNY WOODPECKER (**Dendrocopos pubescens**). Common permanent resident.

EASTERN KINGBIRD (**Tyrannus tyrannus**). Fairly common Summer resident. Extreme dates Apr. 15 to Sept. 13.

CRESTED FLYCATCHER (**Myiarchus crinitus**). Rare Spring migrant and Summer resident. Apr. 12 to Aug. 18.

EASTERN PHOEBE (**Sayornis phoebe**). Fairly common Summer resident, rare Winter resident.

YELLOW-BELLIED FLYCATCHER (**Empidonax flaviventris**). One bird observed on Lynn Mountain April 30, 1949, at an elevation of 1700 feet and a considerable distance from any stream or body of water. The bird was about thirty feet from any stream or body of water. The for several minutes while under observation with 10x binoculars. The sulfur yellow belly, uniformly yellow, was easily visible. It did not sing (L.R.H.).

ACADIAN FLYCATCHER (**Empidonax virescens**). Fairly common Summer resident. Extreme dates Apr. 30 to Oct. 5.

ALDER FLYCATCHER (**Empidonax traillii**). Three records: May 7, 1944 (L.R.H.): Aug.1, 1945 (L.R.H. et al): May 9, 1948 (A.H.W.), The records by "L.R.H." were based largely upon the song "fitz-bew", which I had previously heard from Alder Flycatchers in western New York and southern Ontario.

LEAST FLYCATCHER (**Empidonax minimus**). Fairly common Spring migrant, uncommon Summer resident at high altitudes. Extreme dates Apr. 23 to Oct. 1.

WOOD PEWEE (**Contopos virens**). Fairly common Summer resident. Extreme dates Apr. 13 to Oct. 15.

HORNED LARK (**Eremophila alpestris**). Uncommon permanent resident. Nesting record, see THE MIGRANT, 15:57-58.

TREE SWALLOW (**Iridoprocne bicolor**). Rare Spring migrant. Extreme dates Apr. 7 to May 8.

BANK SWALLOW (**Riparia riparia**). Rare Spring migrant. Extreme dates May 2 to May 6.

ROUGH-WINGED SWALLOW (**Stelgidopteryx ruficollis**). Fairly common Summer resident. Extreme dates March 26 to July 30.

BARN SWALLOW (**Hirundo rustica**). Uncommon migrant Spring and Fall, rare Summer resident. Young observed just above the town of Roan Mountain June 17, 1945. (THE MIGRANT 17:5-6). Extreme dates Apr. 12 to Sept. 30.

CLIFF SWALLOW (**Petrochelidon pyrrhonota**). Uncommon Summer resident, occasionally abundant late migrant in Summer. Two small nesting colonies located in barns in Siam community (THE MIGRANT (18:44-45). Extreme dates Apr. 8, to Sept. 19.

PURPLE MARTIN (**Progne subis**). Uncommon Summer resident. Extreme dates March 5 to Sept. 9.

BLUE JAY (**Cyanocitta cristata**). Common permanent resident.

RAVEN (**Corvus corax**). Rare permanent resident at high altitudes.

CROW (**Corvus brachyrhynchos**). Common permanent resident.

CAROLINA CHICKADEE (**Parus carolinensis**). Common permanent resident up to about 4500'.

TUFTED TITMOUSE (**Parus bicolor**). Fairly common permanent resident.

WHITE-BREASTED NUTHATCH (**Sitta carolinensis**). Rare permanent resident, breeds at higher altitudes.

BROWN CREEPER (**Certhia familaris**). Uncommon Winter resident. Extreme dates Oct. 17 to May 7.

HOUSE WREN (**Troglodytes aedon**). Rare Summer resident. Extreme dates Apr. 13 to Oct. 4. One nesting record in Lily Addition of Elizabethton, 1948 (E.H.W.).

WINTER WREN (**Troglodytes troglodytes**). Fairly common Summer resident at high altitudes. Uncommon Winter resident at lower altitudes.

BEWICK'S WREN (**Thryomanes bewickii**). Uncommon Summer resident, very rare Winter resident. Extreme dates Jan. 19 to Oct. 22.

CAROLINA WREN (**Thryothorus ludovicianus**). Common permanent resident.

LONG-BILLED MARSH WREN (**Telmatodytes palustris**). Only two records to date: Oct. 3, 1948, and Oct. 2, 1949.

SHORT-BILLED MARSH WREN (**Cistothorus stellaris**). One Fall record of this species at Elizabethton Golf Course, Oct. 1, 1944 (L.R.H.).

MOCKINGBIRD (**Mimus polyglottos**). Common permanent resident. Observed occasionally at altitudes of 3500' in vicinity of Lake Phillip Nelson Nov. 24, 1949 and Feb. 19, 1950 (F.W.B.).

CATBIRD (**Dumetella carolinensis**). Abundant Summer resident. Extreme dates Apr. 13 to Oct. 16. One bird apparently wintered near Milligan as it was observed Jan. 1, 1950 (J.C.B., L.B.), and Jan. 7, 1950 (J.C.B., L.R.H.).

BROWN THRASHER (**Toxostoma rufum**). Common Summer resident. Extreme dates March 15 to Oct. 13.

ROBIN (**Turdus migratorius**). Uncommon Winter resident, abundant Summer resident.

WOOD THRUSH (**Hylocichla mustelina**). Common Summer resident. Extreme dates April 10 to Oct. 4.

HERMIT THRUSH (**Hylocichla guttata**). Rare Winter resident. Extreme dates Sept. 19 to April 17.

OLIVE-BACKED THRUSH (**Hylocichla ustulata**). Rare Spring migrant May 4 to May 16 and fairly common Fall migrant Sept. 2 to Nov. 5.

GRAY-CHEEKED THRUSH (**Hylocichla minima**). Rare migrant in Spring and Fall. Extreme dates May 7 to May 15 and Sept. 29 to Oct. 11.

VEERY (**Hylochichla fuscescens**). Fairly common Summer resident at high altitudes, uncommon Spring and Fall migrant. Extreme dates, May 1 to Oct. 2.

BLUEBIRD (**Sialia sialis**). Fairly common permanent resident.

BLUE-GRAY GNATCATCHER (**Polioptila caerulea**). Fairly common Summer resident. Extreme dates April 2 to Sept. 18.

GOLDEN-CROWNED KINGLET (**Regulus satrapa**). Fairly common Winter resident. Rare Summer resident at high altitude.

RUBY-CROWNED KINGLET (**Regulus calendula**). Uncommon Winter resident. Extreme dates, Sept. 27 to May 1.

AMERICAN PIPIT (**Anthus spinoletta**). Very rare Fall and Winter visitant. One bird observed near Franklin Club in Elizabethton Feb. 18, 1945, and a flock of 75 (est.) at same location Dec. 25, 1948 (L.R.H.); two on Little Roan Mountain Sept. 30, 1949, and 16 in Elizabethton Nov. 12, 1949 (F.W.B.).

CEDAR WAXWING (**Bombycilla cedrorum**). Uncommon permanent resident; irregular, abundant Winter resident.

LOGGERHEAD SHRIKE (**Lanius ludovicianus**). Rare Winter resident. Extreme dates Aug. 20 to April 2.

STARLING (**Sturnus vulgaris**). Abundant permanent resident.

WHITE-EYED VIREO (**Vireo griseus**). Fairly common Summer resident. Extreme dates April 7 to Oct. 19. One bird observed Dec. 5, 8, and 14, 1948, on Razor Farm (A.H.W.).

YELLOW-THROATED VIREO (**Vireo flavifrons**). Uncommon Spring and Fall migrant. Extreme dates April 6 to June 21 and July 17 to Oct. 16.

BLUE-HEADED VIREO (**Vireo solitarius**) Uncommon Summer resident at higher altitudes. Extreme dates April 3 to Oct. 25.

RED-EYED VIREO (**Vireo olivaceus**). Abundant Summer resident, extreme dates April 11 to Oct. 17.

PHILADELPHIA VIREO (**Vireo philadelphicus**). One individual observed near Bee Cliff on Watauga River Sept. 26, 1948 (A.H.W., L.R.H.).

WARBLING VIREO (**Vireo gilvus**). Rare Summer resident. Extreme dates April 15 to Oct. 11.

BLACK AND WHITE WARBLER (**Mniotilta varia**). Uncommon Summer resident. Extreme dates April 9 to Oct. 5.

PROTHONOTARY WARBLER (**Protonotaria citrea**). One extremely late fall record Oct. 19, 1943, observed near the Covered Bridge over the Doe River in Elizabethton at close range (L.R.H., L.M.H., L.R.H. Jr.), One observed along Doe River in Lily Addition of Elizabethton Sept. 10, 1948 (A.H.W.).

WORM-EATING WARBLER (**Helmitheros vermivorus**). Rare Summer resident. Extreme dates April 21 to Sept. 26.

GOLDEN-WINGED WARBLER (**Vermivora chrysoptera**). Rare migrant. Extreme dates April 26 to Sept. 26. Probable very rare Summer resident in vicinity of Lake Phillip Nelson at 3500' altitude, summers of 1948 thru 1950. (FW.B.). Not observed at this altitude after June 20.

BLUE-WINGED WARBLER (**Vermivora pinus**). Very rare Spring migrant, only three records from May 2 to May 7 and only one fall record Sept. 19, 1948.

LAWRENCE'S WARBLER (**Vermivora lawrencei**). One bird of this hybrid species observed along Watauga River near Razor Farm on July 29, 1945 (L.R.H.).

TENNESSEE WARBLER (**Vermivora peregrina**). Abundant Fall migrant Aug. 26 to Oct. 25; very rare Spring migrant, only records being May 5, 1946 (J.C.B., L.B.), and May 2 and 3, 1947.

ORANGE-CROWNED WARBLER (**Vermivora celata**). One bird observed in Elizabethton March 5, 1950 (J.C.H., L.R.H.).

NASHVILLE WARBLER (**Vermivora ruficapilla**). Rare Fall migrant with extreme dates of Aug. 18 to Oct. 12. Only one Spring record, May 5, 1946. (A.H.W.).

PARULA WARBLER (**Parula americana**). Uncommon Summer resident. Extreme dates April 8 to Oct. 8.

YELLOW WARBLER (**Dendroica petechia**). Common Summer resident. Extreme dates March 30 to Oct. 15.

MAGNOLIA WARBLER (**Dendroica magnolia**). Uncommon Spring and Fall migrant. Extreme dates April 26 to May 31 and Sept. 4 to Oct. 23.

CAPE MAY WARBLER (**Dendroica tigrina**). Fairly common Spring Fall migrant. Extreme dates April 28 to May 20 and Sept. 4 to Nov. 18.

BLACK-THROATED BLUE WARBLER (**Dendroica caerulescens**). Uncommon Spring and Fall migrant. Extreme dates May 2 to May 15 and Sept. 9 to Oct. 23. Also a common Summer resident at high altitudes. Extreme dates April 25 to Oct. 26. A male observed singing in Doe River Gorge at 2200' June 26, 1949 indicates probable nesting. (L.R.H.).

MYRTLE WARBLER (**Dendroica coronata**). Common Winter resident, abundant migrant irregularly. Extreme dates Sept. 16 to May 12.

BLACK-THROATED GREEN WARBLER (**Dendroica virens**). Common Spring and Fall Migrant—uncommon Summer resident. Extreme dates April 7 to Oct. 21.

CERULEAN WARBLER (**Dendroica cerulea**). Rare Spring migrant with dates April 20 to June 14. One Fall record, Aug. 7, 1948.

BLACKBURNIAN WARBLER (**Dendroica fusca**). Uncommon Spring and Fall migrant. Extreme dates April 16 to May 16 and Aug. 21 to Oct. 14.

CHESTNUT-SIDED WARBLER (**Dendroica pensylvanica**). Fairly common Spring and Fall migrant and fairly common Summer resident at high altitudes. Extreme dates April 26 to Oct. 22.

BAY-BREASTED WARBLER (**Dendroica castanea**). Uncommon Spring and abundant Fall migrant. Extreme dates April 15 to May 28 and Sept. 28 to Oct. 23.

BLACK-POLL WARBLER (**Dendroica striata**). Uncommon Spring and rare Fall migrant. Extreme dates April 23 to May 18 and Sept. 3 to Oct. 11.

PINE WARBLER (**Dendroica pinus**). Rare Spring and Fall migrant. Extreme dates April 30 to June 19 and Aug. 31 to Oct. 9.

PRAIRIE WARBLER (**Dendroica discolor**). Uncommon Spring and Fall migrant. Extreme dates April 14 to June 28 and Aug. 14 to Oct. 5. Probable rare Summer resident.

PALM WARBLER (**Dendroica palmarum**). Uncommon Spring and Fall migrant. Extreme dates April 11 to July 9 and Sept. 2 to Nov. 29. Rare transient in winter. Jan. 6 and 25 and Dec. 21, 1947; January 4, 1948.

OVENBIRD (**Seiurus aurocapillus**). Common Summer resident, March 31 to Oct. 13.

NORTHERN WATER-THRUSH (**Seiurus noveboracensis**). Rare Spring and Fall migrant. Extreme dates May 5 to May 6 and Aug. 23 to Oct. 2.

LOUISIANA WATER-THRUSH (**Seiurus motacilla**). Fairly common Summer resident. Extreme dates March 20 to Oct. 30.

KENTUCKY WARBLER (**Oporonis formosus**). Fairly common Summer resident. Extreme dates April 22 to Oct. 2.

CONNECTICUT WARBLER (**Oporonis agilis**). One observed near Bee Cliff along Watauga River Sept. 28, 1947 (L.R.H.), another June 18, 1949.

MOURNING WARBLER (**Oporonis philadelphia**). Very rare Fall migrant. Two records: Oct. 1, 1944 (L.H.H.); Oct. 5, 1947 (L.R.H'

YELLOW-THROAT (**Geothlypsis trichas**). Common Summer resident. Extreme dates April 1 to Oct. 27. One Winter record at Wilbur Lake Dec. 21, 1947 (L.R.H.).

YELLOW-BREASTED CHAT (**Icteria virens**). Fairly common Summer resident. Extreme dates April 20 to Oct. 8.

HOODED WARBLER (**Wilsonia citrina**). Fairly common Summer resident. Extreme dates April 10 to Oct. 17.

WILSON'S WARBLER (**Wilsonia pusilla**). Rare Spring migrant. Fairly common Fall migrant. Extreme dates May 4 to May 5 and Sept. 19 to Oct. 2.

CANADA WARBLER (**Wilsonia canadensis**). Rare Summer resident at high altitudes. Extreme dates May 1 to Oct. 10. Uncommon Spring and Fall migrant.

AMERICAN REDSTART (**Setophaga ruticilla**). Uncommon Summer res. ident. Extreme dates April 15 to Oct. 12.

ENGLISH SPARROW (**Passer domesticus**). Abundant permanent resident.

BOBOLINK (**Dolichonyx oryzivorus**). Uncommon Spring and Fall migrant. Extreme Spring dates April 27 to May 28 and Fall dates Aug. 17 to Sept. 30.

MEADOWLARK (**Sturnella magna**). Abundant permanent resident. Breeds up to 3500' in vicinity of Lake Phillip Nelson (F.W.B.).

RED-WINGED BLACKBIRD (**Agelaius phoeniceus**). Fairly common migrant, Spring and Fall, uncommon Summer resident. Two winter records Dec. 26, 1948 (L.R.H.) and Jan. 8, 1950 (F.W.B.).

ORCHARD ORIOLE (**Icterus spurius**). Uncommon Summer resident. Extreme dates April 4 to Sept. 10.

BALTIMORE ORIOLE (**Icterus galbula**). Rare Summer resident. Extreme dates April 18 to Sept. 30.

RUSTY BLACKBIRD (**Euphagus carolinus**). Uncommon Spring and Fall migrant. Extreme dates Nov. 12 to April 13.

BREWER'S BLACKBIRD (**Euphagus cyanocephalus**). This species was observed on March 21, 22. and 23, 1944, in our back yard at 1533 Burgie Place in Elizabethton at close range with 10x binoculars. Peterson's "Guide" and Chapman's "Handbook" were consulted on the spot while observing the bird. Fred Behrend reported seeing a Brewer's Blackbrid at the Franklin Club (approximately three blocks distant from our yard) in the evening of one of these three days (L.M.H.).

GRACKLE **(Quiscalus quiscula).** Abundant in Spring, Summer and Fall. Uncommon from middle of Nov. to middle of Feb.

COWBIRD **(Molothrus ater).** Uncommon and irregular Summer resident. Fairly common Spring and Fall migrant; rare Winter resident.

SCARLET TANAGER **(Piranga olivacea).** Fairly common Spring and Fall migrant. Rare Summer resident at higher altitudes. Extreme dates April 10 to Oct. 13.

SUMMER TANAGER **(Piranga rubra).** Uncommon Summer resident. Extreme dates April 23 to Oct. 3.

CARDINAL **(Richmondena cardinalis).** Abundant permanent resident.

ROSE-BREASTED GROSBEAK **(Pheucticus ludovicianus).** Fairly common Spring and Fall migrant and rare Summer resident at high altitudes. Extreme dates April 14 to Oct. 18.

BLUE GROSBEAK **(Guiraca caerulea).** One male observed on Elizabethton Golf Course May 4, 1946 (L.R.H.); another observed near Milligan College May 13, 1948 (M.T. et al).

INDIGO BUNTING **(Passerina cyanea).** Abundant Summer resident. Extreme dates April 27 to Nov. 3.

EVENING GROSBEAK **(Hesperiphona vespertina).** Very rare Winter visitant. Wintered here from Nov. 22, 1945, to May 4, 1946 (THE MIGRANT, 17:1-4).

PURPLE FINCH **(Carpodacus purpureus).** Irregularly abundant Fall and Spring migrant, fairly common Winter resident. Oct. 13 to May 3.

PINE SISKIN **(Spinus pinus).** Rare and irregular Winter visitant, remaining into late Spring, May 24, 1950. Earliest arrival date Nov. 8, 1948.

GOLDFINCH **(Spinus tristis).** Abundant permanent resident. Large flocks common in Winter.

RED-EYED TOWHEE **(Pipilo erythrophthalmus).** Fairly common permanent resident, less common in Winter, especially at higher altitudes.

SAVANNAH SPARROW **(Passerculus sandwichensis).** Fairly common Spring and Fall migrant. March 14 to May 13 and Sept. 21 to Nov. 13.

GRASSHOPPER SPARROW **(Ammodramus savannarum).** Fairly common Summer resident. Extreme dates March 20 to Oct. 6. One Winter record Dec. 26, 1948 (F.W.B.).

VESPER SPARROW **(Pooecetes gramineus).** Fairly common Spring and Fall migrants, rare Summer resident at higher altiudes. Extreme dates March 18 to Nov. 6.

BACHMAN'S SPARROW **(Aimophila aestivalis).** Only one record of this species, observed by Finucane May 7, 1950, just across the line from Sullivan County near the Elizabethton-Bristol highway.

JUNCO **(Junco hyemalis).** Common Winter resident, extreme dates Oct. 7 to April 24, at low elevations. Common permanent resident at high altitude.

CHIPPING SPARROW **(Spizella passerina).** Fairly common Summer resident. Extreme dates Feb. 27 to Nov. 8.

FIELD SPARROW (**Spizella pusilla**). Abundant permanent resident.

WHITE-CROWNED SPARROW (**Zonotrichia leucophrys**). Fairly common Winter resident. Extreme dates Oct. 7 to May 22.

WHITE-THROATED SPARROW (**Zonotrichia albicollis**). Common Winter resident. Extreme dates Sept. 20 to May 20.

FOX SPARROW (**Passerella iliaca**). Fairly common Winter resident. Extreme dates Oct. 24 to March 30.

LINCOLN'S SPARROW (**Melospiza lincolnii**). Two birds observed near Franklin Club April 2, 1950 (L.M.H.), also observed the following day singing (L.R.H.).

SWAMP SPARROW (**Melospiza georgiana**). Rare Winter resident along streams and marshy places. Extreme dates Oct. 17 to May 3.

SONG SPARROW (**Melospiza melodia**). Abundant permanent resident nesting at all altitudes. More abundant in Winter.

The following birds have been found by members of the Elizabethton Chapter of the T. O. S. in counties adjoining Carter County, but have not been found in Carter County.

SNOWY EGRET (**Egretta thula**). Johnson County, Tenn. See MIGRANT, 21:47-48, 1950.

SNOW GOOSE (**Chen hyperborea**). Avery County, N. C. One individual with a flock of about 80 Canada geese flying southward over Lynville Gap about 8:00 a.m., Oct. 14, 1945 (F.W.B., W.F.P., L.R.H.).

BLUE GOOSE (**Chen caerulescens**). Washington County, Tenn. One individual killed at Fish Hatchery Oct. 25, 1949. Head secured and identified (A.H.W.).

GREEN-WINGED TEAL (**Nettion carolinense**). Very rare transient. Not observed until April 10, 1949, at Roan Creek and Watauga Lake in Johnson County, Tenn. (F.W.B.) Also in Sullivan County on Holston River near Piney Flats Nov. 19, 1949 (7) (A.H.W.).

GOLDEN EAGLE (**Aquila chrysaetos**). One individual observed on the summit of Hump Mountain, Avery County, North C., Oct. 10, 1948 (L.R.H.).

PECTORAL SANDPIPER (**Pisobia melanota**). There have been five records of this species at the Fish Hatchery in Washington County, Tenn. during 1949 and 1950. April 9 to May 13 and Aug. 29 to Oct. 26. Two recent records from Johnson County, Tenn., at Roan Creek and Watauga Lake, Sept. 2 and 3, 1950 (2) (L.M.H., A.H.W., L.R.H.),

SEMIPALMATED SANDPIPER (**Ereunetes pusillus**). Two Washington County, Tenn. records at Fish Hatchery, May 15 and Oct. 2, 1949 (A.H.W.). Two recent records for Johnson County, Tenn. at Roan Creek and Watauga Lake Sept. 2 and 3, 1950 (5) (L.M.H., L.R.H., A.H.W.).

SWAINSON'S WARBLER (**Limnothlypis swainsonii**). Very rare Summer resident near Rock Creek Park in Unicoi County, Tenn. Observed on two occasions, May 13 and June 6, 1949 (2) (L.R.H.). Also May 21, 1950 in same area (L.R.H.).

YELLOW-THROATED WARBLER (**Dendroica dominica**). Rare late Summer and Fall migrant in Sullivan County, Tennessee, along Holston River. Aug. 18 to Oct. 9 (A.H.W.).

FALL FLIGHTS OF BROAD-WINGED HAWKS IN THE SOUTHERN APPALACHIANS

For the past two or three years various members of the T. O. S., especially some of those belonging to the Elizabethton and Greeneville Chapters working under the leadership of Fred W. Behrend, have been watching for fall migrations of hawks along the several ridges and chains of the southern Appalachians. In previous years their search has not been very rewarding, but on September 23 thru 27, 1950, actually hundreds of Broad-winged Hawks were observed at various places from southwestern Virginia to the Knoxville area and eastward to the Blue Ridge of North Carolina. The largest number observed at any one place, nearly 1900 hawks, was seen by William Johnson whose account appears below.

The large number of Broad-winged Hawks seen at such widely scattered places indicates that there was a tremendous mass migration of hawks during the five days. Fortunately it happened over a week end when many observers were in the field. In the belief that the weather plays a large part in determining the migration times of many birds, weather maps were examined for the days just preceding and during the observed hawk flights. On September 21 there was a cold front over the Great Lakes and a warm front from the Gulf region over Ohio and West Virginia. The cold front may have started many birds southward, which were then slowed or delayed when they reached the warm front. On the 22nd neither of these fronts remained in the eastern part of the country; winds on this day were from the east and northeast. On the 23rd there was a cold front over the Great Lakes, and winds to the north of our area were from the west; on the afternoon of this day the first large flights were seen (see Behrend's account below). On the next day, the 24th, the cold front passed over Tennessee and North Carolina, and winds were from the north and northeast. On both of these days there was a high pressure area centered west of the Great Lakes and a low pressure area over Quebec, a combination tending to produce winds from the north over the Great Lakes and southward. On the 25th the cold front had passed completely over, the high pressure area was over Indiana and Ohio, and winds were from the north and northeast.

The key conditions which might be used in the future to predict hawk flights in this area apparently are a high pressure west or northwest of the Great Lakes, a low pressure area northeast of the Great Lakes, and a cold front moving southward.

In addition to the accounts that follow, two other reports were received of substantial numbers of Broad-winged Hawks. The first came from Dr. Joseph C. Howell, University of Tennessee, who described the following: On Sept. 24, 1950, he and Mrs. Howell were in the eastern part of Knox County, near the French Broad River, when they saw at least 78 Broad-winged Hawks between 3:50 and 4:40 p.m. The hawks were flying in a series of soaring circles that generally carried them in a southerly direction. Groups of two to five were most common; there were few singles. The largest number in sight at one time was seventeen.

The second report came from Richard Burns and Donald Pfitzer, National Park Service, who on Sept. 16, 1950, saw about fifty Broad-wings at one time over Indian Gap, Great Smoky Mountains National Park.—JAMES T. TANNER, University of Tennessee, Knoxville.

HAWK MIGRATION IN UPPER EAST TENNESSEE.—Observation of hawk migration was engaged in by all Upper East Tennessee chapters of the T. O. S. during September 1950. It was conducted on a larger scale than in previous years, with more participants (approximately 25 this year), greater territory covered, and a longer period of observation.

The object of this undertaking was to determine if the many hawks migrating southward from eastern Canada and northeastern United States continued their flight along the Southern Appalachian Mountains, after having followed the northern and central chains of the Appalachians. A spur to making these observations were reports of the occurrence of large flights of Broad-winged Hawks along the Allegheny Mountains in West Virginia and Virginia and over other mountainous parts of West Virginia. Additional interest was aroused by information concerning the observation of a fairly substantial number of Broad-winged Hawks at the southern end of the Appalachian Mountains in the Fall of 1949.

The study developed to be of unusual interest. Its results not only confirmed the theory that the various ranges of the Southern Appalachian Mountains constitute flyways, and probably major ones, of the Broad-winged Hawk, but simultaneously the fact was established that flights of this species over the mountainous territory of southwestern Virginia, Upper East Tennessee, and part of North Carolina immediately to the South are of substantial size and extend over a relatively wide belt, from the Clinch Mountains north of the Tennessee Valley to the Blue Ridge Mountains some 50 miles south.

Between September 6 and September 23 a total of sixteen trips were made by different parties to twelve different and widely scattered mountains. A variety of hawks in small numbers was observed on these observation trips, but very few Broad-winged among them.

The first exciting news of large numbers of Broad-winged Hawks came from Stephen M. Russell of Abingdon, Virginia, member of the Bristol Chapter, who, stationed on Hayter Knob in the Clinch Mountains north of Abingdon (altitude 4200'), counted from noon to about 4:30 p.m. on September 23 a total of 627 Broad-winged Hawks in flocks of varying sizes, the largest of about 162 birds.

On September 24, Russell observed sizable concentrations of Broad-winged Hawks, the largest of 150 birds, on Mount Rogers in southwestern Virginia (altitude 5719'). His total count from 11:30 to about 4:30 p.m. was 371 Broad-winged Hawks.

Also on September 24, Mrs. Robert M. Switzer, Dr. Howard S. Young, and Mr. Thomas W. Finucane and son of the Kingsport Chapter listed at the north end of Bays Mountain near Kingsport approximately 300 Broad-winged Hawks.

At 1:10 p.m. on September 24, Fred W. Behrend counted 73 Broad-winged Hawks in substantially one flock above the summit of Hump Mountain (altitude 5587'), all in the same locality where a year earlier he had observed approximately 60 Broad-winged Hawks on the identical date.

During mid-afternoon on September 24, Mr. and Mrs. Albert Irvine of the Greeneville Chapter observed from the Camp Creek Bald fire tower southeast of Greeneville a total of 64 Broad-winged Hawks in several small groups, the largest consisting of 16 birds.

At 1:25 p.m. on September 25, Fred W. Behrend observed over Cold Springs Mountain southeast of Greeneville, Tennessee, (altitude 4889'), a small flock of 12 Broad-winged Hawks.

On September 26, while driving to Abingdon to join Stephen M. Russell on a repeat trip to Hayter Knob, Fred W. Behrend observed a concentration of Broad-winged Hawks near Bluff City (altitude 1389'), ten miles north of Elizabethton. He counted 29 of these birds.

On Hayter Knob, Russell and Behrend listed a total of 276 Broad-winged Hawks in three flocks, the largest of them 177 birds, from 1:50 to 2:35 p.m. on September 26.

Mrs. Robert W. Pugh, member of the Kingsport Chapter, observed approximately 200 Broad-winged Hawks near her home at Fordtown, south of Kingsport, (altitude approximately 1500') in the morning of September 27. The hawks were rising, in flocks of about 30, over Hemlock Ridge and soaring in the direction of Bays Mountain.

On September 28, Richard Nevius of the Greeneville Chapter and Fred W. Behrend observed but three Broad-winged Hawks from a fire tower in the Clinch Mountains at approximately 2000' altitude north of Rogersville and south of Kyles Ford, Tennessee, between 1:30 and 3:00 p.m. The weather on that day was extremely hazy as a result of smoke drifting southward from large forest fires in Canada.

On October 1, Mr. and Mrs. E. M. West of the Elizabethton Chapter observed near the Fish Hatchery in the vicinity of Fordtown in Sullivan County 30 Broad-winged Hawks.

On observation trips to Hump Mountain on September 30 and to Roan Mountain and Grassy Bald Mountain on October 1 no Broad-winged Hawks were seen by Fred W. Behrend. Accipiters in fair numbers were in evidence though on these trips.

On or about September 27 a flock of 14 hawks, Broad-winged from all appearances, was seen over the lower end of Beech Mountain, a transverse ridge connecting the Stone Mountains with the Blue Ridge Mountains, as reported by a resident of that section.

The total of Broad-winged Hawks observed during the period of September 23 to October 1 amounted to slightly in excess of 2,000.

It will be interesting to repeat this survey in future years. The data gathered will be of material assistance in following up the results obtained and gaining more comprehensive knowledge concerning the movements of the Broad-winged Hawk.

In the course of the study records were also kept of other members of the Hawk family. The figures listed below apply only to birds observed on the mountain trips and do not include those seen on other occasions. They cover all of September and a few observations trips in October. The list is as complete as it was possible to compile: Red-tailed Hawk—25; Red shouldered Hawk—7, Cooper's Hawk—47, Sharp-shinned Hawk—43, Sparrow Hawk—14, Duck Hawk—5, Osprey—6, Marsh Hawk—1, Turkey Vulture—54, Black Vulture—65, Bald Eagle—1 immature and 1 adult. This amounts to a total of 269.—FRED W. BEHREND, 607 Range Street, Elizabethton, Tennessee.

MIGRATING HAWKS IN THE BLUE RIDGE.—On September 25, 1950, Mrs. Johnson, her sister, Mrs. Wolcott Dennis, Mr. Dennis, and I started from Little Switzerland, North Carolina, to go along the Blue Ridge Parkway to Mt. Mitcheli. There was considerable discussion about the trip as the day was somewhat hazy, but we finally decided to go ahead as Tuesday might turn up with rain which would be worse.

When we reached Bear Wallow Gap, we could see that several large hawks were circling nearby. We parked and were able to identify them as Broad-winged Hawks. It was then about 9:00 o'clock and the haze was clearing somewhat. The hawks were soaring easily in circles. At the bottom the circles were estimated to be about 40 feet, and as the birds got higher in the air, the circles must have been at least a hundred feet in diameter. Some of the hawks were still in the trees, but most of them were on the wing. In about five minutes the hawks had reached the top of the thermal and began to move off to the southwest. Each hawk would ride the thermal up to the top before taking off, and I was able to count the birds as they left. As the first group of 73 were leaving, I noticed a second group come sailing in to the bottom of the thermal and they were soon soaring up toward the top. The birds were so close that we did not need our glasses to be able to see them easily. In fifteen minutes I counted 150 birds leaving the area. As no others seemed to be coming, we decided to leave, hoping that we might see these again.

As we went along the Parkway, we kept a close watch for the hawks, but did not see the flights that had just left the gap. Some miles on the way, at Buck Creek Gap we had to take a side road as there had been a washout on the Parkway. Back on the Parkway, we saw a Red-shouldered Hawk that was almost an albino. It had many solid patches of white on its back, which was toward us. After several minutes watching us, it decided it had business elsewhere.

Leaving the Parkway on the road up to Mt. Mitchell, we approached the area where fir and spruce have been planted. Over the first large ridge, we again saw several hawks soaring and got ready for a hurried count as we had to stop the car directly under where they were soaring. The hawks did not seem to mind us as they just kept soaring on up the thermal. When the first hawk reached the top, it took off as if it had received orders to leave. The others sailed on around the circle and on reaching the proper place, they also took off. The departure was in such easy order that I was at all times able to make an accurate count of the hawks. They glided to the base of another thermal near the radio tower on the end of the mountain, where they again sailed up on a thermal.

We arrived at about 10 a.m. and counted 450 hawks in the next fifteen minutes. The other members of the party were looking northeast up the side of Black Mountains and called that more birds were appearing, so I changed my counting to the numbers of birds in the individual flights as they passed overhead. The groups numbered from six to 150 birds, and all that we could see were Broad-winged Hawks.

At one time there were five groups of birds in sight. As the birds reached the top of one thermal, each would leave for the next. It was almost as if there were whirlwinds raising the birds instead of the fallen leaves. About 11 a.m. the number of birds diminished, and the rest of the party drove on to the top of the mountain, hoping to see some hawks there, but did not see a single hawk until they returned. A single Red-shouldered Hawk hurried over the divide, dropping on the Asheville side of the mountain. At about noon we left as the flight seemed to have finished. During the hour and three-fourths I counted 1894 Broad-winged Hawks and a single Red-shouldered Hawk.

While counting the hawks, several cars stopped to see what was going on. Mr. J. P. Crawford from Hiwassee Dam, North Carolina, said that the evening before, near Linville. North Carolina, he had seen a similar group of hawks circling and had wondered what they were doing.

Near Nettle Patch we saw three more groups of Broad-wings, totaling 50 birds. They were soaring, as were all the rest of the birds that we had seen. Back at Bear Wallow Gap we saw a group of 50 birds and another of 10. Returning to the hotel, we were excited and were telling some of the other guests of our experince when we looked out toward Gillespie Gap and saw more circling hawks. Three groups of the Broad-wings went by: 7, 46, and 116 birds. No more hawks were seen during the afternoon. The total number of Broad-winged Hawks seen on this day was 2,323.

On Tuesday morning we went east on the Parkway to Grandfather Mountain. About four miles from Little Switzerland, a single Red-tailed Hawk was seen perched on a dead chestnut beside the road. We arrived at the top of the mountain at 10:45 a.m., finding it clear; we were able to pick out Roan Mountain and to see the Black Mountains without any trouble. After a few minutes, seven Broad-wings came soaring up the south face of the mountain and soon took off toward Hump Mountain. A few minutes later, I saw a Raven coming toward the mountain with something white in its mouth. It soon swerved as a Cooper's Hawk started diving at it, but kept on toward the north side where it went behind a cliff. Eight more Broad-wings soon showed up and headed toward Roan Mountain. A single Turkey Vulture rode the air currents up and away.

Tuesday afternoon, Mrs. Johnson and I went back to Mt. Mitchell to try to see if there were more hawks aloft, but were only able to see two Broad-wings flying near Mitchell Gap. On the way back we had a most excellent view of a perched Red-tailed Hawk and also of a single Broad-winged Hawk soaring.

On Tuesday, October 3, Mrs. Johnson saw four Broad-wings soaring up over our home east of Knoxville. The birds rode up as the ones had around Mt. Mitchell and after getting very high, took off in a westerly direction.—WILLIAM M. JOHNSON, Knoxville, Tennessee.

HAWK FLIGHTS IN KNOX COUNTY.—On Sunday afternoon, September 24, Mrs. Dunbar and I drove Mr. and Mrs. Ernest W. Hobson and their son David to their place in Raccoon Valley, which is located in Knox County about three miles north of the Clinton Pike. Here we walked up the wooded slope to the top of Bulls Run Ridge. Due to the heavy stand of timber in full leaf we encountered very few birds. We were not looking for hawks! Imagine our surprise when, upon our return to the valley floor, we discovered a flight of hawks over Bull's Run Ridge. The first three hawks were observed at 4:15 p.m. Upon checking the direction of the wind, it was found to be north-north-west. The temperature was cool and the sky was clear. It is doubtful if we witnessed the beginning of the flight or possibly its end. However, within a space of thirty minutes, we counted 39 hawks all headed south along the ridge. Some were so high that they could scarcely be seen with the unaided eye. For this reason many passed unidentified, yet we did identify at least 20 Broad-winged Hawks, one Red-tailed, and one Red-shouldered Hawk. They were soaring with the wind, although occasionally one would rapidly flap its wings or would circle to gain altitude.—ROBERT J. DUNBAR, Oak Ridge, Tennessee.

THE 1950 CHRISTMAS SEASON BIRD COUNT

By T. O. S. MEMBERS

Christmas bird counts from eleven localities are reported here. The localities span the State, from Memphis to Roan Mountain. A total of 95 species were recorded, a rather low number compared with the total of some previous years. Memphis, reporting 75 species, had the highest number, and Roan Mountain, with 11, the lowest. A striking change in comparison with last year is the number of Red-breasted Nuthatches; last year was a record high for them, 180 being reported from five localities, while this year only 5 were reported from the Great Smoky Mountains, the only locality reporting any. No other species show such a striking change, altho three species, Winter Wren, Bluebird, and Meadow Lark, apparently were more common this year than last.

In the table and descriptions that follow, the localities are listed from west to east. Roan Mountain is omitted from the table, and the list of birds from there is included in the description for that locality. Under the heading "Information on the Counts" are described the areas, types of habitats covered, weather conditions, number of observers or parties, miles covered, number of species and approximate number of individual

TABLE OF 1950 CHRISTMAS BIRD COUNTS

SPECIES	Memphis	Clarksville	Nashville	Lebanon	Murfreesboro	Great Smokies	Greeneville	Kingsport	Johnson City	Elizabethton
Pied-billed Grebe	4					2				4
Double-crested Cormorant	84									
Great Blue Heron	3		3		1		2			
Little Blue Heron	*1									
American Bittern	*1									
Mallard	19		12							
Black Duck	5	1	4						6	
Gadwall			2							
Ring-necked Duck	2		10				1			1
Canvas-back		5	1							
Lesser Scaup Duck	2								14	5
American Golden-eye										1
Buffle-head										1
Hooded Merganser						1				
American Merganser			1				6			
Turkey Vulture	5	1	4	2	1	4	29	1	6	1
Black Vulture	10	8	5	3	3		16		1	
Sharp-shinned Hawk						1			2	1
Cooper's Hawk	5	1	1			1		1	1	
Red-tailed Hawk	17	1	5	2		4	1			
Red-shouldered Hawk	6	2	2							
Bald Eagle						1				
Marsh Hawk	4	1			1	1	2			
Sparrow Hawk	27		23	4	5	3	7		4	11
Ruffed Grouse						9				
Bob-white	99	12	1	1					2	16
Coot			2							
Killdeer	152	2	43	18	2	20	11	5		5
Wilson's Snipe	53		3				2			
Ring-billed Gull	212									
Mourning Dove	14	40	360	3	40	10	41	6		23
Screech Owl	1		2		1	3	1			1
Great Horned Owl	1		1	1						
Barred Owl	7		1							
Belted Kingfisher	5	1	6	3		6	2	1		4
Flicker	100	4	19	9	1	4	9	3	3	15
Pileated Woodpecker	1	2	10	4		12	1	1		
Red-bellied Woodpecker	50	7	13	8			4	1	1	1
Red-headed Woodpecker	6						3	4		
Yellow-bellied Sapsucker	14	1	4	3		1	1			1

1950 CHRISTMAS BIRD COUNT—Continued

SPECIES	Memphis	Clarksville	Nashville	Lebanon	Murfreesboro	Great Smokies	Greeneville	Kingsport	Johnson City	Elizabethton
Hairy Woodpecker	17	3	7	2	1	4	3	4	1	
Downy Woodpecker	42	8	53	13	1	13	5	15	1	12
Phoebe			1	1		8		8		2
Horned Lark	3	3	120			20			100	4
Blue Jay	339	3	6	3	3	15	44	33	10	17
Raven						7				
Eastern Crow	150	100	165	61		280	*	89	50	131
Fish Crow	22									
Black-capped Chickadee						*				
Carolina Chickadee	222	29	144	60	5	186	49	56	8	67
Tufted Titmouse	115	8	73	50		24	26	19	3	26
White-breasted Nuthatch	4		2			13	3	14	2	
Red-breasted Nuthatch						5				
Brown Creeper	10		2	1		7		3		
House Wren	*2					1			1	
Winter Wren	34	8	5			13	3			1
Bewick's Wren	5		8	4	2	1	4	2		
Carolina Wren	149	18	53	14	6	22	48	16	2	39
Mockingbird	133	4	51	31	3	10	48	19	12	15
Brown Thrasher	28									
Robin	373		225	4		11	141			3
Hermit Thrush	30					15				4
Bluebird	86	13	66	20	5	13	71	21	25	130
Golden-crowned Kinglet	46	3	12	1		54	1	7		15
Ruby-crowned Kinglet	22		3			7	1	1	6	
American Pipit	7									
Cedar Waxwing	97		3				25	18		10
Loggerhead Shrike	29		5	2		5			1	6
Starling	1466	23	1300	160	50	83	144	4000	200	408
Myrtle Warbler	68	3	16	4	2	4	59			81
Pine Warbler								6		
Yellow-throat	*1									
English Sparrow	273	29	95	90	5	47	122	20	100	120
Eastern Meadowlark	474	32	167	37	9	170	35	5	4	82
Red-wing Blackbird	116	40	35			2	2			
Rusty Blackbird		20								
Purple Grackle	736				11		1			
Cowbird	5	10	1		3					
Cardinal	503	27	230	52	7	55	134	74	10	105
Purple Finch	4		25	31		3	7			6
Pine Siskin							6			

1950 CHRISTMAS BIRD COUNT—Continued

SPECIES	Memphis	Clarksville	Nashville	Lebanon	Murfreesboro	Great Smokies	Greeneville	Kingsport	Johnson City	Elizabethton
Goldfinch	222	75	146	6	24	160	119	39	25	101
Red Crossbill						1				
Red-eyed Towhee	117	18	72	21	3	7	9	21	3	13
Savannah Sparrow	51	2				5		5		
Vesper Sparrow						6				
Slate-colored Junco	432	46	291	150	8	300	34	78	150	141
Tree Sparrow										*2
Field Sparrow	140	43	96	43		84	175	61		20
White-crowned Sparrow	15		11	10	1		71	18	10	18
White-throated Sparrow	1012	35	116	22	6	40	58	40	25	79
Fox Sparrow	26	2		6	1	1				8
Swamp Sparrow	138	10	26			1			1	
Song Sparrow	206	39	97	39		114	92	24	10	49
Lapland Longspur	12									
Total Species	75	45	62	42	30	59	50	89	35	47

birds observed, and the names of the observers. The species and numbers of individuals observed at each locality, except for Roan Mountain, are listed in the table. For additional information on the records marked with an asterisk (*), see the paragraph containing information on that particular locality.

INFORMATION ON THE COUNTS

MEMPHIS, Tenn. (1946 area; wooded bottomlands 30%, deciduous woodlots including city parks 25%, airports, pastures, and old cotton-fields 20%, suburban roadsides 25%.—Dec. 24, 1950; 6:45 a.m. to 5:10 p.m. Fair; temp. 43-59; wind W, 3-10 m.p.h. 31 observers in 4 main parties, breaking up at various localities, and four smaller parties. Total party hours, 92 (82 on foot, 10 by car); total party miles, 231 (78 on foot, 153 by car). 75 species, about 9,630 individuals. Mr. and Mrs. Ben B. Coffey, Jr., Fred Ashley, Cooper and Mrs. Floy Barefield, Mrs. Elizabeth Barton, Thomas Bonner, Robert Burton, Fred Carney, Mary Davant, Dave Dermon, Harry Geyer, Newton Hanson, Helen Inches, Oliver Irwin, Luther F. Keeton, Lawrence Kent, Paul Kisling, Charles Marcus, Jennie May, Charles McPherson, Jr., Jim and Mrs. J. H. McWhorter, Patricia Moore, R. Demett Smith, Bro. Leo Thomas, Maurice and Mrs. M. L. Torti, Plato Tuliatos, Mrs. Rose Woolridge, Alan Ziegler.

The Little Blue Heron was an adult identified by Jim McWhorter; the American Bittern was identified by Demett Smith; the House Wrens by Ben Coffey; the Yellow-throat, a male, by Luther Keeton; all were verified by others in their parties. In addition to the species identified, 74 unidentified ducks and 670 unidentified blackbirds were seen.

CLARKSVILLE, Tenn. (Paradise Hill Road, then along Cumberland River from Hiett's Garden to Mark's Slough, and back).—Dec. 31, 1950; 7:00 a.m. to 4:45 p.m. Sunny but hazy; temp. 20-50; no wind. 45 species, about 743 individuals. Alfred and Edward Clebsch. Additional species observed along this route on the previous evening: Barred Owl, 1; Hermit Thrush, 1; Cedar Waxwing, 10; White-crowned Sparrow, 4.

NASHVILLE, Tenn. (Chiefly south and west of the city, including 85-acre Radnor Lake and wooded shores, Otter Creek Road, Hobbs and Hillsboro Roads, Old Hickory Blvd., Edwin and Percy Warner Parks, Highway 100, 101 Pasture, Westmeade, Hillwood, Bosley Spring, Shelby Park, and Bell's Bend of Cumberland River from ferry to Robertson Island; open fields 20%, wooded pastures and park lands 25%, dense woods 5%, lake area 5%, and thickets, ditch banks, river bank and roadsides 45%).—Dec. 26, 1950; 6:30 a.m. to 4:30 p.m. Clear at start, becoming overcast by noon, then low clouds, windy and very cold towards dusk; temp. 49 to 28; wind NW reaching 20 m.p.h. at dusk. Ground bare, not wet. 23 observers in 7 parties. Total party hours, 50 (40 on foot, 10 by car); total party miles, 94 (30 on foot, 64 in car). 62 species, about 4200 individuals. B. H. Abernathy, Tom C. Barr, Jr., Mrs. W. F. Bell, Ann Brinton, William Crouch, D. J. and Fairman Cumming, Albert F. Ganier (compiler), Mrs. E. W. Goodpasture, Wayland Hayes, Helen M. Howell, Amelia (Mrs. F. C.) Laskey, Mr. and Mrs. E. P. and Miss Penolope Mountfort, Al H. Mayfield, G. R. Mayfield, George Mayfield, Jr, James A Robins, Dan Schreiber, Harvey Scurlock, Robert Sollmann, Norman Thomas (Members of Nashville Chapter, T. O. S.).

LEBANON, Tenn. (Vicinity of Lebanon and southward 9 miles to include Merritt farm and parts of Cedars of Lebanon State Park; open fields 15%, wooded pastures and park lands 25%, cedar thickets 45%, and brushy land, fence rows, ditch banks, and roadsides 45%).—Dec. 30, 1950; 7:00 a.m. to 2:00 p.m. and at 8:00 p.m.; overcast all day and foggy until 10:00 a.m.; temp. 40-50; no wind; ground bare and not wet. 15 observers in 4 parties. Total party hours, 27 (20 on foot, 7 in car); total party miles, 48 (8 on foot, 40 by car). 42 species, about 968 individuals. Robert C. Bone, Albert F. Ganier (compiler), Loyd Hester, Mary Frances Holloway, Graham Kash, G. R. Mayfield, Dixon Merritt, Harvey Scurlock, Mrs. J. C. Sellars, James Shaw, Jimmy Shaw, Dan Schreiber, Norman and Donald Thomas, Mrs. Henry Waters. (Members of Lebanon Chapter T. O. S.).

MURFREESBORO, Tenn. (Rutherford County).—Dec. 24, 1950. Cloudy; temp. 56; light wind. Two observers in one party. 30 species, about 211 individuals. H. O. Todd, Jr., Harvard Todd.

GREAT SMOKY MOUNTAINS NATIONAL PARK, Tenn.-N. C. (essentially same area as in past 13 years; circle with 7½-mile radius centering on Bull Head of Mt. LeConte, including a section of the Tennessee-North Carolina divide from near Mt. Collins east to Dry Sluice Gap;

towns of Gatlinburg and Pigeon Forge, Tenn.; altitude 1200 to 6500 feet; spruce-fir forests 40%, deciduous forests 25%, farmland and abandoned fields 25%, towns and suburbs 10%). —Dec. 31, 1950; 6:30 a.m. to 5:30 p.m. Clear; temp. 15 (above 6000 ft.) to 45; wind variable, light to approximately 25 m.p.h. at high altitudes; ground bare in lowlands, up to 12 inches of snow cover above 6000 ft. Thirty-four observers in 10 parties. Total party hours, 81; total party miles 247 (74 on foot, 173 by car). 59 species, about 1,895 individuals. Jon Beasley, Mr. and Mrs. Harvey Broome, Leroy Buckner, Richard C. Burns, Mary Ruth Chiles, J. A. Counts, James Count, Eric Cron, Brockway Crouch, Mr. and Mrs. Robert J. Dunbar, Robert Eslinger, Arthur A. Harris, Robert P. Hornsby, Joseph C. Howell, Phillip Huff, William M. Johnson, Mr. and Mrs. H. F. Leonard, Bonnie McDonald, S. R. Meaker, Andrew J. Meyerriecks, Mr. and Mrs. Robert A. Monroe, Elise Morell, Robert Scott, William Searle, Edward Shelley, Jr., Louise Schultz, Arthur Stupka, James T. Tanner, Charles Thompson, William Yambert (T. O. S. and National Park Service).

Included in the count of Chickadees are both Carolina and Black-capped Chickadees.

GREENEVILLE, Tenn. (circle of 7½ mile radius about Greeneville, including Roaring Fork Creek, Bluff Mt. at Marvin, Tusculum, Afton, Shiloh, Bird's Bridge to the Nolichuckey River, White's Mill; stream banks 30%, deciduous woods 25%, open fields and thickets 40%, city suburbs 5%). — Dec. 27, 1950; 8:00 a.m. to 4:00 p.m. Clear; temp. 22-40; wind NE, 30 m.p.h. 10 observers in 5 parties. Total party hours, 26; total miles 87 (15 on foot, 72 by car). 50 species, about 17,670 individuals. Mrs. Willis Clemens, Mr. and Mrs. Alfred Irvine, Mr. C. M. Shanks, Mr. and Mrs. J. B. White, Bob White, Mr. and Mrs. Richard Nevius (compilers).

The number of Crows seen was an estimated 16,000. In addition to the species listed, a Redpoll was reported by Mrs. Irvine, who watched it for several minutes in her yard; since there is only one other report, another sight record, for this species in Tennessee, this report should be accepted only tentatively

KINGSPORT, Tenn. (7½ miles radius centering on Pactolus School, including Bay's Mtn., Pactolus Farms, residential district, Colonial Heights area; pasture 50%, wooded land 30%, residential area 20%).—Dec. 31, 1950; 8:00 a.m. to 4:30 p.m. Clear; temp. 33-50; wind N, 0-5 m.p.h; no snow or ice. 18 observers in 6 parties. Total party hours, 12 (11 on foot, 1 by car; total miles, 26 (14 on foot, 12 by car). 38 species, about 4,739 individuals. C. Crane, D. Delius, Mrs. P. Fields, R. Gee, R. Gift, W. E: Gift, F. Guthrie, P. Guthrie, Mrs. C. A. Harris, Jr., W. Langstaff, W. C: McHorris, W. H. McHorris, E. Self, Mrs. R. M. Switzer, R. M. Switzer, Jr:, Miss D. Vestal, C. Witsel, H. Young.

JOHNSON CITY, Tenn.—(area lying north of Johnson City).—Dec. 31, 1950; 9:00 a.m. to 2:00 p.m. Fair, temp. 45; wind of 8-10 m.p.h: Two observers in one party. 35 sp., about 800 individuals. Robert B. Lyle and Bruce P. Tylor.

ELIZABETHTON, Tenn. (same area as in the past 7 years with center at Valley Forge; Watauga Lake, Watauga and Doe Rivers, Buffalo and Gap Creeks, and adjacent areas; lake border 5%, stream borders 50%, woodlands 25%, and open fields 20%).—Dec. 31, 1950; 7:15 a.m. to 5:34 p.m. Cloudy early morning, sunny and hazy to clear rest of day; temp. 31-42-31; wind NW, 8-12 m.p.h.; ground bare and fairly dry. 9 observers in 5 parties Total party hours 29; total miles 74 (22 on foot, 52 by car). 47 species, 1806 individuals. F. W. Behrend, Mr. and Mrs. J. C. Browning, Kenneth Clark, Mr. and Mrs. A. W. Evans, Dr. and Mrs. L, R, Herndon, Richard Hughes (Elizabethton Chapter T. O. S.).

The Tree Sparrows were seen by Fred W. Behrend. A Ruby-crowned Kinglet was seen in the area on Dec. 30.

GRASSY BALD MOUNTAIN AND ROAN MOUNTAIN, Tenn.-N. C.—(ascent from crossing of old and new Roan Mountain roads via latter and Heaton Ridge trail to Grassy Bald Mountain, descending via Jane Bald and Round Bald to Carvers Gap, ascending to Roan Mountain Knob and returning via Carvers Gap on old Roan Mountain Road to starting point; altitude from 3750 ft. to 6,300 ft.; deciduous woodland with scattered small briar patches 50%, balds partly overgrown with alder 25%, spruce and fir forest mixed with rhododendron and alder 25%).—Jan. 1, 1951; 7:15 a.m. to 5:45 p.m.; slightly cloudy morning to early afternoon, clear and cloudless rest of day, considerable haze in valleys; temp. 27-38-33; wind W, 1-18 m.p.h.; trace of snow at lower altitude to 2 feet of crusted snow in woods on northern slopes, few bare spots on south side only of balds. Total hrs., 10½; total miles, 12 (on foot). Downy Woodpecker, 1 (4200 ft); Horned Lark, 10 (of 5 of them in view on ground at near 6200 ft. 3 were the Northern and 2 the Prairie subspecies; Common Raven, 1 (6200 ft.); Am. Crow, 1 (4900 ft.); Tufted Titmouse, 7 (3900 to 5000 ft.); White-breasted Nuthatch, 2 (4800 ft.); Robin, 1 (5700 ft.); Eastern Bluebird, 1 (5750 ft.); Am. Goldfinch, 1 (5600 ft.); Slate-colored Junco, 8 (3800 to 4800 ft.); Song Sparrow, 2 (1 each at 3750 and 4200 ft.). Total, 11 species; 35 individuals. Note: Balsam trees, which bore most aboundant crop in preceding winter, entirely devoid of cones. No birds in evidence in coniferous forest from 5500 to 6300 ft.—Fred W. Behrend (Elizabethton Chapter, T. O. S.).

THE ROUND TABLE

RECENT BIRD MORTALITY IN GREAT SMOKY MOUNTAINS NATIONAL PARK.—The record-breaking warm weather of late October and early November, 1950, which prevailed in the Southern Appalachian region, was brought to a sudden halt on November 4 when temperatures dropped and the season's first snow fell in the higher Smokies. By the morning of November 5 the mercury stood at 14 degrees above zero at Newfound Gap (elevation 5,040 feet), on the Tennessee-North Carolina state line, and patches of snow mottled the ground to the 3,500 ft. elevation. This rapid change from summer-like to winterlike conditions precipitated a flight of various birds, mostly shore and water inhabitants, which moved ahead of the storm during the night of the 4th; a number of these, perhaps mistaking the wet road for a watercourse, alighted on that stretch of cross-mountain highway (Tenn. No. 71) which parallels the upper reaches of the West Prong of the Little Pigeon River, at elevations from 3500 to 4200 ft. It is possible that some were killed or injured by the impact; others, perhaps weakened or confused by the snowstorm which prevailed at the time, wandered about once they were grounded. Ordinarily, the traffic over this road would be very light at this time of day and year, particularly in view of the weather, but such was not the case on the night in question. Hundreds of people were returning to North Carolina from the Tennessee-North Carolina football game which had been played in Knoxville that afternoon, and it was by mere coincidence that this unusually heavy traffic encountered the flight of migrants at about the time these birds were alighting. At least 21 birds were killed and a lesser number injured.

Mr. Donald W. Pfitzer of Gatlinburg, Tennessee, left the town at 9:30 o'clock on the night of November 4 and drove to Newfound Gap, in the Great Smoky Mountains National Park. He noticed a number of birds flying about in the snowstorm and occasionally he stopped to pick up a dead or crippled individual. Early next morning he again went over this road and secured a few more birds. Upon examining these specimens we found the following represented: Coot—eight birds (seven were dead, one live bird was photographed and liberated); Virginia Rail—two birds (dead); Sora—one bird (dead); Ring-necked Duck—one bird (dead); Lesser Scaup —one bird (dead); Yellow-billed Cuckoo—two birds (one was dead but the other appeared to be unharmed and was liberated).

Mr. Pfitzer reported seeing three additional Coots and two Killdeer in the same general area and at this same time.

Park Rangers Melvin Price and Dewey Ealy, Assisant Naturalist Richard Burns, members of the park's road-maintenance crew, and I all found a few birds mostly in the same area (3500-4200 ft.) on November 5. The total number of birds involved, including the already-mentioned individuals which were collected or observed by Mr. Pfitzer, follows:

COOT—12 dead and seven or more live (including injured) birds. This represents the second record for the occurrence of this species in Great Smoky Mountains National Park; the only other record goes back 15 years (November 9, 1935) when one of these birds was found by the road construction crew at the Forney Ridge parking area (elevation 6310 ft.) and later photographed and released.

VIRGINIA RAIL—three dead birds. The first park record for this species.

SORA—one dead bird. Only once before has it been known to occur here (a stunned individual in Gatlinburg, Sept. 28, 1942).

KILLDEER—two live birds observed by Pfitzer. A fairly common resident in areas bordering the park.

YELLOW-BILLED CUCKOO—2 birds; one dead, the other was alive and was later liberated. This is the latest autumn occurrence of which we have any record.

RING-NECKED DUCK—one dead bird. First record since March 25, 1942, when Joe Manley reported four birds on Laurel Lake (near Townsend, Tennessee, less than two miles north of the park boundary).

LESSER SCAUP—three birds, of which one was found dead. The two live individuals were later liberated. This is a fairly common spring and autumn migrant in our area.

GREEN-WINGED TEAL—one dead bird. The only other park record is my observation of a flock of 10 at Metcalf Bottoms, Little River, on October 31, 1938.

BALDPATE—one dead bird. The only other park record is Joe Manley's observation of four birds at Metcalf Bottoms on Nov. 13, 1940.—ARTHUR STUPKA, Great Smoky Mountains National Park, Gatlinburg, Tennessee.

SHARP-TAILED SPARROW IN SOUTHWESTERN VIRGINIA.—While participating in the Bristol Chapter's Fall Field Day on October 7, 1950, I flushed a Sharp-tailed Sparrow from the high grass bordering the mill pond in Abingdon, Virginia. The bird disappeared into the adjacent cattail marsh but returned to feed in the dense grass a few minutes later. My only other record for this vicinity is of one individual at Saltville, Virginia, on October 16, 1940.—STEPHEN M. RUSSELL, Route 3, Abingdon, Virginia.

NOTE: There is no record, as far as I know, for the Sharp-tailed Sparrow in Tennessee.—EDITOR.

MENABONI'S BIRDS. By Athos and Sara Menaboni. Reinhart and Co., Inc., N. Y. 1950. ($10)

This book is well titled. The paintings of birds are by Athos Menaboni, and the text, written by his wife, Sara, is largely about the birds that have been watched and cared for by Menaboni. The book is primarily a vehicle for Athos Menaboni's paintings. A painter of murals and of birds for a long time, he has not been widely known to bird students and appreciators of bird art because he has not illustrated manuals and handbooks about birds nor books on the birds of a State; most paintings of birds are made for one or another of these purposes. In this book are thirty-two colored plates, thirteen full-page illustrations in black and white, and numerous smaller black and white figures. The colored plates will naturally attract the most attention, the most praise, and the most criticism. Most of the plates show one or two individuals of the same species of bird on some appropriate vegetation or in flight, all against a white background. As is the case with all kinds of art, people "know what they like" about bird paintings, so there is little point in a reviewer attempting to evaluate the paintings in this book. He can only say that Menaboni has a style like that of no other bird artist, and that his bird portraits are beautiful and attractive. The black and white full-page illus-

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The simple truth about birds is interesting enough;
it is not necessary to go beyond it.

trations appear flat and uninteresting in comparison with the fine color of the colored plates. An unfortunate feature of the design of the book is that the legends for the plates were placed on their backs rather than on the facing pages. Except for this detail the book is handsomely designed and put together. The narrative makes pleasant reading,—about the birds the Menabonis have cared for in their home and sanctuary; about some adventures they have had in watching birds; and the story of finally making their home sanctuary.

The first printing of "Menaboni's Birds" was sold out immediately upon publication, proof of the value of the work and of the great popular interest in the beauty of birds. The publisher, it is understood, is making a second printing.—JAMES T. TANNER.

NEW T. O. S. CHAPTER AT LEBANON

A new chapter of the Tennessee Ornithological Society has recently been organized at Lebanon. Its mentor and first President is Dixon Merritt, one of the founders of the T. O. S. and an Honorary Life Member. Its starting membership numbered about ten, and one of its first activities was this year's Christmas Bird Count, which is reported in other pages of this issue.

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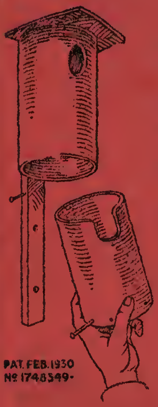

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THE BREEDING HERONS OF TENNESSEE

By ALBERT F. GANIER

Because of their retiring disposition, highly specialized requirements, and localized distribution, much less is known of herons than of most other birds. Of the ten species of herons found in North America, seven are to be found nesting in Tennessee at the present time, and since the writer has been especially interested in these thru the years, some of his observations and experiences are offered under the species headings which follow. The other three, viz, the Great White Heron of the Florida Keys, the Reddish Egret, and the Louisiana Heron, are Gulf coast species and, except for the latter, are not likely to be recorded in Tennessee even in the post-breeding season migrations of late summer. Our only record of the last mentioned is of one recorded by Ben B. Coffey near Memphis on July 18, 1948.

While the series of artificial lakes that have been created by dams along our large rivers in recent years would seem likely to increase the number of heronries of these colonial nesting birds, these conditions have apparently not developed. All heronries now known to exist were in use prior to the artificial lakes or are at points where none were created. Clean shorelines and fluctuating levels do not produce the food required by most herons for the raising of their young. Instead, they prefer the wooded swamps, the sluggish streams and the natural shallow marshy lakes where aquatic life is more stable and more nearly to be counted on during the nesting season.

For convenient reference, the accompanying map has been prepared to show location of the heronries and these are numbered to facilitate reference in the text. It is quite probable that additional heronries exist, especially those of small size and in the western part of the state. Among those shown, the actual heronries at numbers 5, 6 and 7, at Lake Obion, Open Lake, and Mud-Horn Lakes, were not found but are undoubtedly present in the surrounding swamps because Great Blue Herons and American Egrets are present in numbers all during the nesting season.

WARD'S GREAT BLUE HERON (**Ardea herodias wardi**).—No nesting colonies have as yet been found eastward from the western bend of the Tennessee River, nor have suitable areas existed for their establishment. That part of the State is hilly, well drained, and only small marshes exist. The most noted heronry in the State is "Cranetown" (2) which is located in the flooded forest adjoining the southwest margin of Reelfoot lake. It was my pleasure to discover this great heronry on May 26, 1921, on a special trip made for the purpose, and since that time it has been visited by hundreds of ornithologists from far and near. The nests were built high in the old cypress trees,

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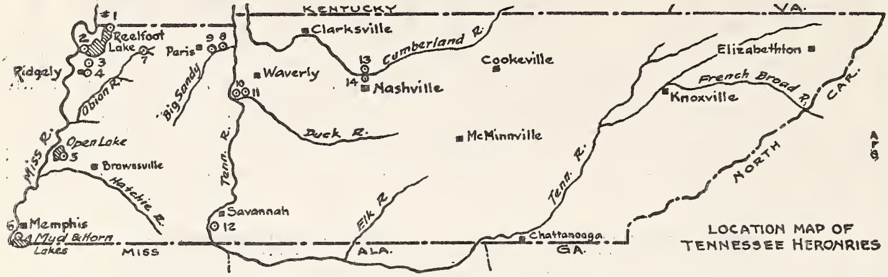
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13
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Big Sandy
10
11
Obion R.
Knoxville
French Broad R.
CAR.
Open Lake
5
Brownsville
Miss R.
Duck R.
McMinnville
Tenn. R.
Hatchie R.
Tenn. R.
NORTH
Elk R.
Savannah
12
6
Memphis
Mud & Horn Lakes
MISS
ALA.
Chattanooga
GA.

LOCATION MAP OF TENNESSEE HERONRIES

from 70 to 90 feet above the water in which they stood, and as well as I could estimate by climbing to the tops of several trees, there were approximately 300 nests of the Great Blue Heron and 100 of the Double-crested Cormorant. My next visit was on May 29 and 30, 1932, at which time I estimated 300 nests of the Great Blues, 200 Cormorants, 450 of the American Egret and 50 of the Water Turkey, the latter two species having come in in the meantime. A visit on May 28, 1933, showed that 12 pairs of Black-crowned Night Herons had added their presence and were nesting at mid-levels. An earlier Reelfoot heronry, located at the Kentucky line (1), was visited by me on April 26, 1919, at which time there were 125 nests of the Great Blues and 75 of the Cormorants. This colony had formerly been used also by American Egrets, but they had been "shot out" by plume hunters some years before. When revisited in May, 1932, it contained only 13 nests: 11 of Great Blues and 2 of American Egrets. During subsequent years the nearly fledged young in this colony, especially the Cormorants, were shot for use as bait by market fishermen, so during some years the colony faded out completely.

Turning now to the valley of the western bend of the Tennessee river, three heronries have been in existence for many years. The most northerly (8) was at Sulphur Well swamp in the Big Sandy River bottoms and was described by Alfred Clebsch and the writer (1942). I had located the herons here in 1936 and when the heronry was visited in the spring of 1937, it was found to have about thirty nests of Great Blues and several nests, not yet in use, of what were believed to be Yellow-crowned Night Herons. On June 20, 1942, the colony was still intact, without apparent increase and one of the Yellow-crowns was seen. All the nests were in the tops of tupelo trees and averaged fifty feet above the knee-deep water of the swamp. During the following winter the T.V.A. cleared all of the trees from the site to make way for flooding the valley for reservoir purposes and the herons moved to a new location (9) a few miles westward. This was described by Eugent Cypert (1949) who on a visit on May 28, 1949, believed there to be about 100 nests, all of the Great Blues. This heronry was similar to the one it succeeded.

At the mouth of Duck river (10) there had existed for many years a good sized heronry in a wooded swamp in the wide Tennessee River bottoms. This too was cleared off in 1943 and the herons established a new breeding colony (11) in a small grove of young cypress a few miles eastward. These stood in fairly deep water during nesting season. The writer, with Mr. Cypert and others, visited this colony on April 3, 1949, and estimated that there were 350 nests of the Great Blues and 150 of American Egrets. We paddled our boats about under the trees to see if any other species were nesting but found none. However, in some dead oaks standing in water several hundred yards away, there were about 100 nests of the Double-crested Cormorant. Several hundred acres of bottom land behind the levees here become and remain submerged until they are pumped out in late May and this condition has so greatly increased the size of the colonies that they now rank second only to Reelfoot's "Cranetown".

Further southward another colony of Great Blues was found by the writer on May 30, 1926, in the Tennessee River bottoms of Hardin county, about two miles southeast of Pittsburg landing (12). This was located in one of a series of wooded sloughs, grown up with bushes, cypress, and other trees. There were 20 nests of this species and in nearby trees there were 3 nests of Yellow-crowned Night Herons. Of the Great Blue nests, 17 were built near the top of a large old cypress and three more were in an adjacent and smaller cypress. These herons had not been "shot up" so were quite unwary and remained in the tree as I stood beneath it. The nests contained young of various sizes and the ground beneath was heavily covered with chalky excreta. I did not revisit the locality until May 1948, at which time I watched herons going into the slough and assume this colony remains static, since feeding and other conditions remained unchanged.

If in future this species is found nesting in East Tennessee, it is most likely that they will be found to be this subspecies pushing its range up the Tennessee valley, rather than the smaller, darker race, **A. h. herodius,** pioneering southward.

AMERICAN EGRET **(Casmerodius albus egretta)**—Here is a species that has effected a remarkable come-back from the days when it was almost exterminated by plume hunters, for during the past 30 years it has reentered Tennessee and is now nesting regularly. It has also begun to nest again in the states north of the Ohio river. On my first visits to the Reelfoot heronries, 1919 and 1921, there was not a single Egret in either. By 1932, there were approximately 450 of their nests in "Cranetown" (2) and they were also present in the smaller colony at the Kentucky line. They have maintained their numbers on Reelfoot Lake and enlist so much interest from visitors that local hunters and fishermen no longer molest them. A few of them may be seen regularly during spring at Open Lake (5) in Lauderdale Co., and at Mud and Horn Lakes south of Memphis (6) and doubtless comprise a full share of the as yet unfound heronries adjoining those lakes. Perhaps the most pleasing new outpost of this come-back is their joining with the Great Blues to augment the herony located where Duck river flows into the Tennessee (11). On the previously mentioned visit of April 3, 1949, Mr. Cypert and the writer estimated that of the 500 heron nests in use there, approximately 150 were those of this Egret. Some further details may be had by referring to the remarks under Great Blue Heron, a species with which the

Egrets seem quite congenial. At Reelfoot, it was noted that the Egret nests were made of willow twigs and were not placed far from the center of the trees. By way of comparison, the Great Blues' nests were made of durable cypress twigs, were placed well out on the limbs and often lasted for years. The latter are first to lay and many of their nests will have young before the bulk of the Egrets have begun to incubate in late April. There is a very marked post-nesting season wandering of these Egrets and they are reported each year in nearly all of the Eastern states during late July and August.

SNOWY EGRET (**Leucophoyx thula thula**)—One of the most pleasant surprises of the 1950 nesting season was that of extending the present breeding range of this little white egret northward into Tennessee, from a point sixty miles south of Memphis where Ben B. Coffey reported it nesting at Moon Lake (1943). This Tennessee heronry (4) is composed almost entirely of this species and of the Little Blue Heron and is located a mile east of the village of Ridgely, eight miles south of Reelfoot Lake. James L. Norman of Dyersburg had told me of some Little Blue Herons nesting here the year before, so on May 19, 1950, I visited the site and found a heronry quite different from any I had seen before. Because of density of nests and heavy foliage, a close estimate was not possible, but there were between 700 and 1000 nests in the relatively low trees. About 90% of these were of the Little Blues and 10% (70 to 100) were of the Snowy Egret. In the center of the colony two Black-crowned Night Herons were seen sitting on their nests high in the willows, and several hundred feet away, four nests of the Green Heron were found. This heronry occupies a swampy area of about twelve acres, covered with low trees and thickets and near the center of which is a long, shallow, two acre pond in which thorn and willow trees grow. Flanking the pond are thickets of ironwood trees covered with vines, as well as other growth. The heronry was unusual in that this small haven was entirely surrounded with thousands of acres of well-tilled cotton fields in which many workers were ploughing and working the crops. The herons flew back and forth to their distant feeding grounds, along small bayous and little swamps or perhaps to shallow Isom's Lake, a few miles northward, without noticing or being noticed by the workers. I learned from people who lived in two dwellings a few hundred yards away that the birds had used the place for years. The knee-deep pond, which goes dry in late summer, was studded with thorn (honey locust) trees about twenty feet high and it was in this water protected area that the first nesters had begun to lay. Most of the trees held several nests and as this area became crowded, late nesters began building or repairing old nests about the edge of the pond, in all covering an area about 150 by 300 feet in extent. The thorn tree nests contained young, from one to ten days old. The water and ground under these trees was littered with the shells of eggs that had hatched. The ironwood trees had broad, thick tops and some contained a dozen nests, averaging nine feet above the ground. These held four or five eggs, some being fresh. The two species mingled their nests together and there was little to differentiate them except the slightly smaller size of the eggs of the Egret. The latter, as they stood by their nests, frequently raised their aigrette plumes for display. All through the heronry were nests of the Bronzed Grackle, some even touching nests of the herons. There were about 100 of these and nearly all examined held fresh eggs. Along the road within a few miles of Ridgley, a dozen American Egrets were seen and these probably have a small heronry near, perhaps with Great Blues, for Reelfoot's "Cranetown", ten miles north, would seem too far.

LITTLE BLUE HERON **(Florida caerulea caerulea)**.—The only large nesting colony (4) of these birds known to me in the State is that also occupied by the preceding species, and which I believe is sufficiently described just above. It might be added that as I approached the heronry, a number of Little Blues were in an adjacent weed patch, picking up and breaking off dead weed stems to carry to unfinished nests. One of these was a year-old bird whose plumage was nearly white. All others of this species were in mature solid blue plumage with maroon colored necks. Their beaks at this season are conspicuously blue, of an indigo shade. The only other place I have found this heron to breed is at Reelfoot Lake, some miles northward. Here, on May 25, 1919, I encountered a nesting colony of a dozen pair along the canal a mile south of the lake (3). The nests were built in two large willow trees and held young several weeks old at the time. Previously, on May 1, 1919, I came across a group of five in the swamp at the north end of the lake and feel sure there must have been a small nesting colony nearby. So far as I can find, these are the most northerly breeding points for this species.

EASTERN GREEN HERON **(Butorides virescens virescens)**.—Being well distributed all over the State, this is the best known of all our herons. It is not often colonial in its nesting habits although sometimes as many as a half dozen pair will nest together where feeding conditions are good. Much more often there is only a single nest in a locality and this may be as much as a mile from its regular feeding ground. It is a habitant of all the major and lesser rivers of the State as well as the lakes, creeks, and such few marshes as we have. Nests in woods and along streams are sometimes thirty feet above the ground while those in button-bush marshes are usually only a few feet above the water. The average height is about twelve feet. I have occasionally found them nesting in pines and cedars. The nests are carefully constructed of well chosen twigs and last thru succeeding winters. They are so thin however that the five blue eggs (some times four or even six) can often be seen from the ground beneath. Watching a Green Heron while it is feeding is an interesting experience for every small aquatic creature that moves is deftly captured and often with the most clownish maneuvers. In THE MIGRANT for Sept. 1939, Dr. Arthur McMurray has an interesting account of one which he kept for a pet for some time after mending its broken wing. The average date of first spring arrivals at Nashville is April 7.

BLACK-CROWNED NIGHT HERON **(Nycticorax nycticorax hoactli)**.—Although widely distributed over North America during the breeding season this usually colonial nesting species has so far been found nesting at only three locations in Tennessee. Because of being nocturnal in its feeding habits, it can be easily overlooked and there are probably as yet unfound colonies. It was first found nesting at Reelfoot Lake, in the "Cranetown", when on May 28, 1933, I counted a dozen of their nests. These were built only fifteen to twenty feet above the water and were placed in young ash and swamp maples. They had evidently come in quite lately for the nests held fresh eggs whereas the nests of the other herons, high up in the treetops above, were filled with young. They continued to be found there by myself and others in subsequent years. On May 19, 1950, I found two birds of this species occupying nests in the Ridgely heronry, eight miles south of Reelfoot (4). This heronry is described under the section covering the Snowy Egret.

I had hardly expected to find a nesting colony in Middle Tennessee so was most agreeably surprised to locate one just four miles northwest of the Nashville courthouse (13), on April 7, 1950. The site was a cedar-clad hillside a mile north of the Cumberland River and a few hundred feet south of White's Creek. The nests were from 100 to 200 feet from a public road but were well hidden among the upper branches and foliage of large cedars. Later nests were built in deciduous trees. There were twelve to fifteen nests in all, some completed, some old ones being repaired, and some new ones being built. As I entered the heronry, all of the birds left and flew into other cedars a few hundred feet away so I seated myself partly hidden to await their return. Two neighboring Crows flew in about five minutes later and this brought the nesting herons back at once to guard their eggs, for Crows are their greatest enemies. Those with eggs settled on or beside their nests while the others flew about, breaking off dead twigs or else stealing twigs from old and as yet unclaimed nests. Before leaving, I climbed the largest cedar and on examining the four nests it contained, I found them to hold 4, 3, and 1 eggs respectively, with one empty. Only two other nests had eggs as yet and I was a little surprised at their nesting so early. Inquiry of the property owner, W. Z. Fontaine, revealed that the birds had been nesting there for at least four years and that although they would become noisy enough later on to awake the family at night, he was interested in their protection. Late one evening in June, I took a position from which I could watch the herons leave for their feeding grounds. It was well past sunset, in fact nearly dark when the first bird left, uttering a coarse squawk as it did so and headed up the White's Creek valley. They left by ones, twos, and threes, at intervals during the next fifteen minutes after which it was too dark to see the remaining ones, and they flew off in several directions. Wishing to ascertain their time of spring arrival, I visited the place on March 16, 1951, and found that four of the birds had already come in. They were napping in the largest cedar and the small amount of excrement on the ground indicated that they had only been there a day or two. There was still some snow on the ground, the remains of a six inch fall four days previous. The old nests had come thru the winter in good shape, despite the severe ice-storm of February,and there were about twenty of them. I have seen these birds on the French Broad River above Knoxville in early May and have reason to believe that small colonies exist in that area. The many little wooded islands created by the power dam lakes in East Tennessee should make ideal nesting sites for them.

YELLOW-CROWNED NIGHT HERON **(Nyctanassa violacea).** This distinctly southern species occurs in Tennessee at nearly if not quite the northerly limit of its breeding range. It is an uncommon species of rather solitary habits and quite particular as to its choice for a summer home. Its preference is for a swampy woodland in which there are shallow lakes, pools, or winding, sluggish streams, where water may be counted on at least until late summer. Instead of associating with others of its kind, it prefers the company of such swamp loving denizens as Prothonotary and Swainson's Warblers, raccoons, snapping turtles, mosquitoes, bullfrogs and cottonmouth moccasins. Such swamps are found at intervals in the bottoms of the Cumberland and Tennessee Rivers and along the courses of many of the sluggish rivers in the western part of the State. I found the first Tennessee nests of this species on May 30, 1926, when three of their nests were found adjacent to a small colony of Great Blues. This site was near the east bank of the Tennesse River in Hardin County (12) and is described more fully under the section covering Great Blue Heron. The nests were built from forty to fifty feet up, on the lowest branches of swamp-ash trees. They were constructed on horizontal limbs at from eight to ten feet out from the trunk, this being typical for this species. One nest contained four eggs well advanced in incubation, another held young ten days old, and the third I did not climb to. In the first nest, the male was incubating and did not fly until I clapped my hands beneath the tree. At the second nest, a parent was sitting upon it with the young while the other parent stood two feet away. A parent flew from the third nest.

These birds nest sparingly about Reelfoot Lake, where W. R. Spofford flushed one from a nest on Otter Basin, May 17, 1942. I saw two about the lake on May 30, 1932, and on the following day I observed one as I crossed the Obion river near Gibbs, thirty miles eastward. With others I have observed it in one of the Cumberland River swamps near Ashland City and in Mingo swamp near Franklin, Tenn., on dates that would indicate nesting. I have mentioned above its presence at the Sulphur Well heronry, near Paris (8).

As though to give me a "break" in return for more distant and toilsome searches, three pair came to Nashville to nest in 1949, settling in a four acre woods flanking the five acre Buena Vista marsh (14). This was just north of the city limits, in a broad river bottom close to the Cumberland. While searching these woods on May 3, I startled several large birds from vine-clad water maples and looking upward, perceived two nests ten feet apart. By waiting about a few minutes, I saw them return and readily identified them. Climbing a nearby tree, I saw that the nests held eggs so left promptly in order not to discourage their pioneering. Before leaving the woods however I sought and found the nest of a pair of noisy Crows and removed the small young from it lest their parents be tempted to feed them on heron eggs. Several days later I directed several of our Nashville T. O. S. members to the spot in order that they could enjoy the unusual find. Their disappointment was keen when on arrival they found only the shells of fresh heron eggs on the ground; the Crows had wrought destruction after all. During the winter the woods were cut away and the marsh partly drained.

The Reelfoot Lake heronries and their occupants can be found more fully described in my paper "Water Birds of Reelfoot Lake" (1933). Other references to some of the heronries mentioned, chiefly "Cranetown", may be found in the references cited below.

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2112 WOODLAWN DRIVE, NASHVILLE, TENN.

THE RED-WING ROOST AT REELFOOT LAKE

By ROBERT J. DUNBAR

Those who have never had the opportunity to observe the dramatic departure at sunrise or the amazing return at sunset of the Red-winged Blackbirds **(Agelaius phoeniceus)**, which roost during the winter in the sawgrass at Reelfoot Lake, Tennessee, may class the following account as fabulous, but before they do so they should visit Reelfoot.

On my first visit to Reelfoot Lake (1946), I was overwhelmed by the great number of Red-wings that came there to roost. Although I estimated their number in terms of millions, I hestiated to report any such astronomical figures for fear of being branded a fabricator. Since then, however, from 2,000,000 to 2,640,000 Red-wings have been reported by James L. Norman and party (1947, 1948, 1949). From my second experience at Reelfoot, which took place from December 14 through December 17, 1950, I am inclined to believe that if an estimate could be made simultaneously by a number of observers stationed at the several points of egress to check the early morning departure of Red-wings, the result would be astounding.

An hour before sunrise, on the morning of December 14, 1950, L. A. Fuller of Oak Ridge and the writer rowed along the north side of Willow Bar. Whenever we approached to within forty or fifty feet of the sawgrass we could hear a whir of wings, the sound of which rose and fell resembling water gently lapping against the shore. In fact it sounded so much like wave action that one of the men in the boat a few yards to our stern refused to believe otherwise until the light of day disclosed the birds in motion. About one-half hour before sunrise we pushed the prow of our boat into the sawgrass at a point where the bar was less than 100 yards across. As the boat nosed into the grass, Red-wings swarmed up on both sides and settled down again a few yards away.

With the approach of sunrise the Red-wings became more and more restless, and upon the slightest provocation they would swarm above the grass tops only to settle down again a few yards to the southeast. Each successive swarming would carry them farther and farther southeast before they again settled into the sawgrass. Their movement by our place of observation was always in a southeasterly direction and as soon as one swarm would vacate a patch of sawgrass another would take its place. In the general path of the moving birds was a small clump of five or six willow trees about twenty feet in height. At one moment the bare limbs of these trees would be sharply silhouetted against the morning sky and the next they would be fully leafed out with living birds. As the surging swarms of birds continued to mass on the beach head of Willow Bar, the whir of wings grew to a constant roar and the top of the sawgrass took on the appearance of a creeping black carpet. It was almost sunrise when suddenly, as if by a single command, the bulk of the Red-wings rose into the air and started streaming in a southeasterly direction along the

Bar, thence across the narrow stretch of water to the mainland, where they were soon lost from view.

We made a futile attempt to count the Red-wings in flight, then we tried estimating. Our best efforts resulted in 600 to 1,000 individuals passing our observation point each second. We considered that a conservative estimate was 800 per second for 30 minutes or 1,440,000 birds moving out from Willow Bar, one of perhaps a half dozen points of egress from the Reelfoot Lake Roost.

After the Red-wings had departed and the sun was high, I noticed the aged, bent-over condition of the sawgrass, and I wondered what had caused it so early in the season. It had the appearance of slough grass in the spring following the disappearance of a heavy blanket of snow. Although, in some of the protected spots around Reelfoot Lake, there were still remnants of an early snow I felt sure it had not been heavy enough to have been the sole reason for the prematurely aged condition of the stiff sawgrass. Recalling the heavy bird traffic that morning, I concluded that there could be little doubt but that the daily repetition of the many perchings and takeoffs of the many thousands of Red-wings had contributed a great deal to make the condition of the sawgrass on Willow Bar what it was.

The following morning Norman Marsden, the third member of our party from Oak Ridge, and I beached our boat at approximately the same place on Willow Bar I had been the previous morning. The Red-wings gave us a repeat performance and helped us to confirm the estimate of their numbers made on the preceding day. This morning I tried to give more attention to the individual birds, but found it next to impossible to concentrate on a single bird within a whirling mass. The Red-wing was the principle blackbird, but there were a few hundred Grackles present and perhaps two other species which I could not identify.

Before sunrise on December 16, the fourth member of our party, Joe Gorman, and the writer beached our boat in the sawgrass on the south side of Willow Bar at a point almost opposite from that where the observations on December 14th and 15th were made. This location proved to be a much better vantage point. From here we could not only observe the great stream of blackbirds depart from Willow Bar, but we could see in the distance great clouds of birds reeling and twisting in the sky as they moved eastward from the point of Green Island. Except for the bird clouds, the sky was clear. To the westward we could see an occasional bird cloud moving in that direction. From these observations, I am sure that there must be several points of egress from the Reelfoot Lake Roost. There can be little doubt of the one at Willow Bar and one at Green Island is good possibility. Norman (1949) suggests one in the vicinity of Samburg and two others on opposite sides of the Lake. Doubtless there are others. If we assume five points of egress of 1,500,000 birds each, that would be a total of 7,500,000 the confirmation or repudiation of which would make an excellent winter project for some enterprising bird club.

Although I believe that the sunrise departure of the Red-wings offers a more satisfactory opportunity for estimating the numbers roosting at Reelfoot Lake, their return at sunset has possibilities if the bird streams can be kept separated. If you drive westward along Route 21 from Troy a half hour before sunset, as I have done, you should have an experience worth the trip. On my first visit to Reelfoot (1946), I observed great reeling clouds of blackbirds moving northwest in the direction of Reelfoot Lake. As I approached the lake the bird clouds became more numerous and wave after wave was observed. As the bird clouds approached the Lake, they formed into bird streams. At Morris Camp one stream crossed the lake to Willow Bar and one stream continued along the east shore toward Samburg. In the four evenings that I spent at the Morris Camp, I noted some variation in the route of the bird streams, probably due to wind conditions. On one evening I noted a bird stream traveling toward Samburg on the west side of the trees on the east shore of the Lake while on the next evening they followed the east side of the same trees and on a third evening they must have gone directly overland to Samburg or they passed while I was busy watching the flight across the water to Willow Bar. The flights past the Morris Camp were completed by twenty-five minutes after sunset.

Another good subject for a winter project would be the determination of the daily range of the Red-wings from the roosting site at Reelfoot Lake. This might be accomplished through the cooperation of observers living or stationed at different points and distances located radially from the roost. Would that I could spend the winter with lots of free time in the vicinity of Reelfoot Lake.

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106 GLENDALE LANE, OAK RIDGE, TENN.

A GREAT HORNED OWL IN A BANDING TRAP.—ON July 23, 1950, W. C. McDaniel, patrolman on Tennessee National Wildlife Refuge, went to visit his duck banding trap on the Big Sandy Refuge Unit, and instead of finding ducks, found a Great Horned Owl and three Mourning Doves which the owl had killed. The duck trap was a pen covered with two inch mesh wire with a funnel type entrance. The throat of the entrance was about seven inches across. The trap had originally been placed in shallow water but the water level of Kentucky Lake had been lowered so that the trap was left stranded on the mud flat. The doves had been lured into the trap by the bait and the owl had been attracted by the doves. In order to have gotten into the trap, the owl must have flown into the trap entrance and walked through the throat of the entrance.

Sprunt and Chamberlain (1949 South Carolina Bird Life) report a case of a Great Horned Owl that had followed a Black Duck into a banding trap.—EUGENE CYPERT, P. O. Box 646, Paris Tenn.

THE SEASON

MEMPHIS AREA—Christmas Counts might not always be indicative of mid-winter bird life as our coldest weather is usually from about New Year's thru February. This November presented near record cold and heat with some abrupt changes, a Thanksgiving snow, and wind. This unusual early cold produced a noticeable effect on vegetation and on the individual numbers of birds, but the Christmas Count highlights were species usually found to the south and not the more northern visitors. At Memphis on Dec. 24 we recorded an American Bittern, 2 House Wrens, and a male Maryland Yellow-throat. At Tupelo, Miss. on Dec 25 a House Wren and a Catbird were seen while at Moon Lake (Lula) Miss. on Dec. 30, another Catbird, two Short-billed Marsh Wrens, and 5 Brewer's Blackbirds (R. D. Smith) were found. A female Yellow-throat was seen Jan. 20 at Horn Lake (Lakeview, Miss.) by the Barbigs while another adult Little Blue Heron was seen Feb. 5 from the highway between Grenada and Calhoun City by Newt Hanson. In late January a six-day sub-freezing period was marked by a sleet, followed by several inches of snow, then a record of brief 11° F. Ground-feeding species, already at a low, seemed almost absent from yards and parks, except for an invasion of Starlings.

The fall season at Mud Lake was very poor because of high water, but this latter favored the waterfowl in the area generally, although the Thanksgiving "norther" moved out thousands just before legal hunting started. Oct. 29 south of Memphis yielded Anhinga,—13 (President's Island, Tuliatos); White Pelican,—38 (river, Bynum); and Gt. Blue Heron, —24, and American Egret, 35 (Mud Lake). The last Least Terns were 2 on Sept. 11 near Mud Lake, with 5 Caspian Terns there on Sept. 16; 12 Black Terns were at Lonoke, Ark (RDS) on the latter date.

An uninjured immature Yellow-billed Cuckoo, just able to fly some, was examined at West Memphis, Ark., Sept. 16, a late date. Migrating Chimney Swifts appeared in less than half their usual numbers and the last were seen Oct. 18, despite mild weather. Tree Swallows reached moderate numbers in Mid-Sept. (320 on the 16th) and the Rough-wingeds less so. The last Trees were 35 at the Penal Farm, Nov. 5; a late Barn Swallow was at Lonoke, Ark. Oct. 8. On Oct 22 several transient warblers were noted at Shelby Forest:—Tennessee—5, Magnolia—2, and Black-throated Green—3 (T.O.S.): About 10:30 A.M. on Oct. 1 an unusual flight of Broad-winged Hawks was observed. About 153 in two loose groups were seen moving slowly to the southwest. J. E. Jolly reported that he saw several hundred passing over Riverside Park one fall day in 1949; some were so low as to be readily identified and all were apparently Broad-wingeds. Previously, 6 reported for Sept. 28, 1947 (Migrant, 18:62, 1947), was the highest recorded. (Our only other hawk flight for Memphis was on April 22, 1934, when 57 of 3 species were seen (Migrant, 15:27, 1934). Bald Eagles were noted at Mud Lake (from Nov. 11, but probably Oct.) and Horseshoe Lake, Ark. (reportedly throughout the year).

The first Myrtle Warbler was seen on Oct. 11 and White-throated Sparrows Oct. 10,—on schedule. Brewer's Blackbirds (rare) appeared at the Penal Farm: 8 on Nov. 5 (BC) and 3 on Dec. 3 (RDS) along with the rarer Western Meadowlark on the latter date. However, about three of these Meadowlarks have been heard there regularly up thru the last visit (March 6). Some other likely areas (to Arlington) were worked Jan. 21 without finding this species. Prairie Horned Larks and Lapland Longspurs built up to estimates of 250 each during the last of November. Killdeers at the farm totaled 700 on Nov. 5.

Unusual on the Memphis Count, Dec. 24, was a Great Horned Owl observed calling, southwest of Frayser, a suburb. Rarely recorded, another such was seen at Forest Hill Cemetery, Feb. 10 and subsequently by Oliver Irwin, and a third in Overton Park (1st record) on Feb. 12 by Victor Julia and since then by Scouts. Thompson Bonner reports a King Rail on Dec. 30 at Cobb Lake, Whitehaven. About 50 Canada Geese were reported wintering at Porter Lake (Horseshoe Lake) Ark., by Howard Barbig. A duck shot Dec. 16 at Reelfoot Lake seemed unusual to Gilbert Schloss of Memphis; his description perfectly fitted the Old Squaw and is considered to be a valid record. A few Horned Grebe returned to the Moon Lake Count and also occurred at Horseshoe Lake, 1 on Jan. 21 (RDS), and adjacent Porter Lake, 2 on Feb. 25 (T. O. S.).

The return of spring became official when a Purple Martin was seen Mar. 2 at Forrest City, Ark.; at Memphis two (Sechler) and one (Taylor) on March 5. Four Golden Plover at the Penal Farm (L. Coffey and G. R. Mayfield) on Mar. 6 may augur another record-breaking migration of this interesting species.—BEN B. COFFEY, JR.

NASHVILLE—The winter season in Middle Tennessee has been severe and in many ways dramatic as both Man and Bird can testify. Sub-zero temperatures and snow Thanksgiving night with continued cold through December and January were merely forerunners of a terrific mid-winter ice storm with temperatures ranging from 13 to 20 degrees below zero. This severe weather with concomitant non-availability of food had an effect on birds of the region which has been of much interest and concern.

Fall migrations were unremarkable with general reports of a scarcity of migrating warblers. B. H. Abernathy received reports of more migrating geese than usual. An early record of 3 Pine Siskins in company with Goldfinches feeding on elm seeds Oct. 28-30 is reported by the writer.

The concensus of T.O.S. members is that the density of the bird population for the Nashville region has been notably low for the whole winter. Although present in a few erratic records the extreme scarcity of Robins, Grackles, Blue Jays, Cedar Waxwings, and Myrtle Warblers has been general. A scant hackberry crop and a probable shortage of other foods may have influenced these populations more than the severe weather. No large roost of Robins, Blackbirds, or Starlings was reported. A flock composed largely of Cowbirds and Redwings varying from an estimated 1000 in early January to 300 in late February fed in meadows and cornfields along the South Harpeth River. During the same interval a flock of 100 doves fed in corn fields. Twenty Rusty Blackbirds were in the same area Dec. 30 and Jan. 1 and 6 (A.R.L. and K.A.G.). One species whose movement from the South Harpeth Valley seemed influenced by the zero temperature on Nov. 24 was the Turkey Vulture. They suddenly disappeared and did not return until after the mid-February thaw. One might say, "Lucky buzzards!" (see record of 4 on Christmas Count).

A highlight of the winter season was the discovery on Dec. 19 of a flock of 125 Pipits in Bell's Bend by A. F. Ganier and Ed Schreiber. Mr. Schreiber also says the Great Blue Heron remained at Roehm's Lake for several weeks after the Christmas Count. Notes from Mrs. Amelia Laskey's home records include a Bewick's Wren which wintered there and the return of a banded Robin on Jan. 16 that was defending territory after being absent for several months. Especially interesting was the appearance at her banding station of a Chipping Sparrow on Jan. 29, 1951. It remained to be joined by a second one on Feb. 21.

The toll of bird life and casualties short of death resulting from the "Great Ice Blizzard of '51" cannot be accurately estimated. Rain Jan. 28 turned to sleet and freezing rain which fell for three days following. Every twig, branch, limb, tree trunk, and grass blade was thickly ice-covered. Trees and limbs crashed for 24 hours from Jan. 31 to Feb. 1. By Feb. 1 about 5 inches of ice and sleet was topped by an equal measure of snow and dependably reported temperatures were 13, 18, and 20 degrees below zero. The total effect was bewildering, beautifully fantastic, and often cruel. It was fortunate for birds that the streams and spring-fed branches did not freeze. There was scarcely any break for near a week and the ground was not completely open until Feb. 13.

Numerous reports of Mockingbirds without tail feathers and one of a tailless Dove came to G. R. Mayfield who also had a report from Mrs.

Haywood Norman, Tyne Blvd., of 16 dead Bluebirds taken from her boxes with the additional 6 birds of her colony missing. Dr. Mayfield also received a report from Mr. Austin, Lebanon, Tenn., of three coveys of Quail frozen as they roosted in Cedars of Lebanon Park. Mrs. Laskey found feathered remains of 2 Bluebirds in Warner Park nesting boxes with no way to determine whether they were caught alive by predators or were eaten after death from freezing or starvation. She trapped a Dove with foot and tarsus swollen and sore from frost-bite. Mr. Abernathy took a half-frozen Brown Thrasher from his feeding shelf on Feb. 1. It revived, but died 3 days later. This victim of the storm established, however, a good winter record for the species. Mr. Abernathy reports his Bluebird population decimated by half. My own observations are confined to the rural region of the South Harpeth Valley and Basin Spring. Feathered remains of a Junco, Downy Woodpecker, and Starling were found on the snow Feb. 2. Hermit Thrushes, a Sapsucker, and Pileated Woodpecker were observed feeding on ice-covered sumac berries. The most startling apparent effect of the storm on bird-life in this woodland was the sudden and continued absence of Chickadees, Carolina Wrens, and Mockingbirds with a marked decrease in Titmice and Downy Woodpeckers. Twelve trips to this specific area during Dec. and Jan. show an average of 10 Chickadees per trip ranging up to as many as 18 and 31. From the beginning of the blizzard for 6 weeks not one single Chickadee was observed; then Mar. 11, only one individual which has not been since recorded. Two weeks later, March 25, 2 others were seen. Carolina Wrens and Mockingbirds show the same pattern of absence. Mrs. Laskey's March 16 notes from Warner Parks read, "Bluebirds still scarce. Only 5 seen. No Mockingbirds, Chickadees, or Wrens observed." From recent local trips Dr. Mayfield notes a marked scarcity of Bluebirds, Carolina Wrens, and Titmice with a normal abundance of Towhees and Cardinals. Miss Howell and Mr. Robins report Chickadees from Warner Park since the storm. From records and reports it appears that ground feeders such as the Dove, Killdeer, Meadowlark, Junco, Towhee, and Cardinal weathered the storm well, while Chickadees, Carolina Wrens, Bluebirds, and Mockingbirds were drastically affected.

The thaw made way for the return of winter-absent species. Turkey Vultures reappeared in the South Harpeth area Feb. 13; singing Horned Larks returned to nesting territory Feb. 17; Phoebes have been regularly present since Feb. 22; a Brown Thrasher was on Battery Lane Feb. 24 (A.R.L.); 4 Redheaded Ducks and 2 Canvasbacks were on Roehm's Lake the week of Mar. 12 (E.S.); Water Thrush, Mar. 15; flock of 15 Vesper Sparrows, Mar. 18 (K.A.G.). And so the seasons blend imperceptibly one into the other.—KATHERINE A. GOODPASTURE.

LEBANON—Perhaps the most interesting time of the winter, as well as the most heart-rending, was the period of severe weather between Jan. 29 and Feb. 9, when our world was sealed in with ice and snow, and the thermometer dropped to 13 degrees below zero. It snowed for several days before the sun came out on Feb. 2. During the severe weather at least six Fox Sparrows were seen within a few feet of dwellings—two by Dixon Merritt, four by myself. The morning after the first snow I swept out a wide path only a few feet outside my bedroom windows, where I kept grain constantly. So many birds fed there that I never had to sweep it again despite the continued snow, for the birds kept it tramped down. By actual count I saw as many as 12 Field Sparrows, 8 White-throated Sparrows, 4 Fox Sparrows, 2 Song Sparrows, 30 Cardinals, 4 Chickadees, 5 Titmice, 20 Juncos, 2 Brown Creepers, 45 Grackles, 20 Mourning Doves, 38 Meadowlarks, 5 Cowbirds, 1 Flicker, 1 pair of Downy and 1 of Red-bellied Woodpeckers, 4 Crows, 2 Myrtle Warblers, 1 Carolina Wren, 15 Starlings, 20 English Sparrows, and 150 Horned Larks. I had never seen the Horned Larks so their appearance was most exciting. The first ones appeared on Feb. 2, 50 of them. The following day there were 75, the next 100, and the next 150. Then they began to decrease until on Feb. 9 when snow and ice were thawing, I saw only 2.—TRESSA DEAN WATERS.

KNOXVILLE—A Sudden cold snap immediately following a warm Thanksgiving Day was the most unusual weather event occurring in this area during the winter season. Large flocks of Robins and a few small flocks of Rusty Blackbirds were present in the woods where Dogwood berries were abundant for a short time after the cold snap, and then the flocks disappeared about the same time that the berries did. The only unusual species observed during December were Horned Grebe: 2 on Dec. 9 and 4 on Dec. 7, and Palm Warbler: one each on Dec. 2 and 9. Temperatures during January varied considerably, but with no severe storms. After the first of the year relatively few ducks have been observed. Turkey Vultures, Phoebes, and Ruby-crowned Kinglets were rare during January, and so were Robins until about the 23rd of January when numbers reappeared. Red-breasted Nuthatches and Pine Siskins were notably absent this year. One or two Red-headed Woodpeckers, two Pine Warblers, and one White-crowned Sparrow passed the winter in the vicinity of certain feeding stations in the Knoxville area. Another species that apparently wintered in small numbers was the Brown Thrasher, for one was seen on Jan. 14 and two remained in the vicinity of one house from Feb. 2 thru succeeding weeks.

Redwings and Grackle, both of which were absent during December and absent or very scarce in January, arrived in considerable numbers about Feb. 28. A few Purple Martins arrived during the first week of March, but a cold wave followed and few if any more appeared for the next two or three weeks. Another early migrant was a Louisiana Water-thrush, seen and heard singing on Mar. 18 (T.O.S.), At the time of this writing, more Brown Thrashers are being reported, but few other Spring migrants have yet arrived.—JAMES T. TANNER.

GREENEVILLE—The severe cold of the past winter undoubtedly affected the bird population in this area. The suddenness of the cold wave late in November caught some birds which had not migrated. Mr. and

Mrs. J. B. White observed three Grackles on their feeding table during the snow of this period. Cold Spring Mountain has been coated with ice and snow above 2500 feet a great many times during the winter. This may account for the unusually large number of Juncos in the foot-hills of the mountains and along the Nolichuckey River.

Among the winter residents the following were more abundant than usual: Bluebirds, Sparrow Hawks, Juncos, Towhees, Shrikes, Goldfinches and Mockingbirds. Red-headed Woodpeckers have been very rare all winter. At this writing, March 22, they have not returned to the Tusculum College campus where they are always common summer residents. Cedar Waxwings have been scarce in this area, possibly because of a scarcity of cedar and holly berries. Three or four White-breasted Nuthatches spent the winter on the Tusculum campus, but Red-breasted Nuthatches, which were common a year ago, have not been observed. On Christmas Day fifteen Pine Siskins were observed by Mrs. Willis Clemens near her home at Tusculum; they were around for three days but were not seen again during the winter. Crows have been roosting in this county near Sunnyside for at least thirty years. When winters are severe in the north the number of crows wintering here is very large. The number for this past winter probably exceeded 20,000.

Among Spring arrivals are Grackles on Feb. 12 and Redwings on Feb. 27. Several species of birds began to sing during the spring-like weather between Feb. 10 and 15. On March 19 Mrs. Richard Nevius observed Carolina Wrens building a nest near her home.—C. M. SHANKS.

ELIZABETHTON—The weather during late summer and fall was approximately normal except for a total of ten inches of snow that fell before Dec. 20, which is more than we have had in any one winter during the past seven years, and except that November—with a minimum of 4 degrees on Nov. 25—and December have been colder than normal. Cold days during the winter were Jan. 9 with 16 degrees and Feb. 3 with 6 degrees.

There was quite an influx of shore birds on the mud flats of Watauga Lake between mid-August and mid-September. This is unusual in that formerly there was no suitable place for sandpipers to feed. The birds observed here were Killdeer, Semipalmated Plover, Greater and Lesser Yellowlegs, and the Spotted, Solitary, Least, and Pectoral Sandpipers.

Of particular interest is the relatively large number of late departure dates for species during 1950 compared with the preceeding six years. For sixteen species, last records for the species were from one to seventeen days later than the last records of preceding years. The most delayed were Summer Tanager last recorded on Oct. 20, 1950, compared with a previous last record of Oct. 3, and Yellow-billed Cuckoo last seen on Oct. 18, 1950, compared with Oct. 3.

Of special interest was the occurrence of a Florida Gallinule at the junction of Roan Creek and Watauga Lake on Oct. 1 (Mr. and Mrs. L.R.H.). This is the first record we have of this species in this area. At the same location 2 Snowy Egrets appeared on Aug. 23 and remained to Oct. 2. An

Upland Plover appeared on the lawn near the Franklin Club within the city limits of Elizabethton on Sept. 23 and remained there until Oct. 16. Also on Sept. 23 F. W. Behrend and others observed 5 Upland Plovers on top of Big Bald Mountain at an elevation of approximately 5200'. On Sept. 2 a flock of approximately 40 Common Terns and 25 Black Terns were observed on Watauga Lake by Mr. and Mrs. L. R. Herndon; this is the second record of Common Terns in Carter County and the first of Black Terns. During September and October a concerted effort was made to observe migrating hawks; the considerable success of these observations is summarized in the December 1950 MIGRANT.

Arrival dates for some of the waterfowl on Watauga Lake and Watauga River were: Common Loon, Sept. 8; Horned Grebe, Nov. 4; American Egret, Aug. 23; Canada Goose, Oct. 29; Mallard Duck, Nov. 5; Black Duck, Nov. 5; Baldpate, Nov. 5; Redhead, Dec. 2; Ring-necked Duck, Nov. 4; Scaup, Oct. 29; Ruddy Duck, Oct. 21; Hooded Merganser, Nov. 5; Coot, Oct. 7. There appeared to be a rather large influx of ducks during the last week of October and the first of November. Other interesting records of waterfowl during the winter were: Canada Goose, Feb. 2; Old Squaw Duck, Feb. 3 to Mar. 17,—this is the first record of this species in our territory, and the bird has been present on Wilbur Lake during the entire time.

Phoebes were absent from Jan. 1 until Feb. 24; this is the first winter in which Phoebes have not been present all thru the winter. One Ruby-crowned Kinglet was reported on Jan. 7 and not reported again until Feb. 10; this is unusual for they are usually present thruout the winter.

An early spring migrant was a Magnolia Warbler seen on Mar. 10. It was seen by Mr. and Mrs. L. R. Herndon in their yard in company with a flock of Myrtle Warblers. It was observed for ten to fifteen minutes at such close range that binoculars could not be focused, and the very yellow underparts heavily streaked along the sides with dark stripes identified the bird as this species.

Tree Sparrows, 3 on Dec. 24 and 2 on Dec. 31, recorded by F. W. Behrend, were new records for this territory. The only Pine Siskin seen in this territory this season was seen by F. W. Behrend at Carver's Gap on Feb. 18. Other interesting records follow: Savannah Sparrow, Feb. 18; Grackle and Cowbird, Feb. 24; Redwing, Feb. 28; Chipping Sparrow, Mar. 3; Rusty Blackbird and Brewer's Blackbird, Mar. 13. The Rusty Blackbird was being observed thru 7x50 binoculars at a distance of about 25' when the Brewer's Blackbird walked into the field of view, and its irridescent color was conspicious in contrast to the drab color of the Rusties. The Brewer's Blackbird was observed again on the following day in a tree in the same yard by the same observer (L.M.H.).—LEE R. HERNDON.

BRISTOL AREA—Weather conditions were in direct reverse from those of last winter. Temperatures were subnormal thru February and much of March. There was more snow and rain. The severe weather of early winter had no appreciable effect upon the winter residents. Phoebes and Flickers, which are often scarce during severe weather, were in customary numbers, as were Killdeer, and White-crowned and White-throated Sparrows. Tree Sparrows, on the other hand, were present for the first time since 1946. Mourning Doves were perhaps scarcer than usual thruout the early part of the winter but were back in fair numbers by late February. Ruby-crowned Kinglets were in slightly greater numbers than usual in the early winter. Red-breasted Nuthatches were not seen this winter in the lowlands, contrasting with the large counts of last year.

The filling of the newly completed South Holston Reservoir is resulting in the observation of more ducks in this area than ever before. Since Feb. 11 fourteen species have been seen there. Unusual numbers or species are as follows: Mallard, maximum count 59; Baldpate, 61 on Mar. 6 and 52 on Mar. 22; Pintail, 32 on Mar. 6; Wood Duck, first noted on Feb. 20; Canvasback, 2 on Feb. 11 and 2 on Feb. 20, first county records; Lesser Scaup, 57 on Mar. 6 and 66 on Mar. 22; American Golden-eye, maximum of 225 on Feb. 11; Bufflehead, 5 on Mar. 22; Old Squaw, 1 on Feb. 11; Hooded Merganser, maximum of 20 on Mar. 6; American Merganser, 2 on Feb. 11. A count of 9 Ring-biled Gulls and 1 Herring Gull on the reservoir is the first time that more than one gull has been observed at the same time in this area.

Two records were made of Sora, one a definite winter record on January 30 and the second possibly a migrant on Mar. 6.

On Mar. 1 1800 Redwings were seen at the mill pond in Abingdon, Va. The first Savannah Sparrow was seen on Mar. 2 and the first Black-crowned Night Heron on Mar. 23.—STEPHEN M. RUSSELL.

NOTES HERE AND THERE

A MISCELLANY OF CORRECTIONS

In the article on the Horned Lark, by Katherine A. Goodpasture, in the September 1950 MIGRANT, "1000 feet" in the next to the last line of page 38 should read "100 feet".

The following corrections apply to the "Birds of Carter County, Tennessee," by Lee R Herndon, in the December 1950 MIGRANT: under American Egret, substitute Nov. 15 for Nov. 5; under Yellow-bellied Flycatcher, the second sentence should read "The bird was about thirty feet from the observer for several minutes while under observation with 10x binoculars"; under Rough-winged Swallow, a very late date of Sept. 10, 1948, was omitted; entirely omitted was "Red-breasted Nuthatch, rare permanent resident"; under Loggerhead Shrike, a late record of May 6, 1945, was omitted; under Warbling Vireo, the extremely late records of Nov. 6 and 13, 1949 (E.E.) were omitted; under Connecticut Warbler, the record of June 18, 1949, was apparently in error and should have been omitted; under Orchard Oriole, the early date Apr. 4 should be

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The simple truth about birds is interesting enough;
it is not necessary to go beyond it.

Apr. 7; under Grasshopper Sparrow, the early date should have been March 30 instead of March 20; under Palm Warbler, July 9 should be June 11.

A note from Ben B. Coffey says, "A Little Blue Heron was included in the Count (Christmas Count for 1950 from Memphis) but unfortunately the record was erroneous and should be disregarded."

NOTICE OF THE ANNUAL MEETING

The annual meeting of the Tennessee Ornithological Society will be held on Saturday and Sunday, May 12 and 13, 1951, at Standing Stone State Park, 10 miles northwest of Livingston, Tenn. This is an innovation for State meetings of the T. O. S., it having been decided upon at the Nashville meeting last May. The Park Lodge will be headquarters and this and a number of nearby furnished summer cabins have been reserved for the occasion. The park includes 8,700 acres of high hills and valleys, heavily timbered and quite scenic. There is also a beautiful lake, clear streams, waterfall and picturesque trails all about. As much of our time as possible will be spent afield. There will be business and program sessions late Saturday afternoon and evening and papers are hereby solicited. Those wishing to remain on thru the following week will find the place very attractive for vacationing. All members are urged to attend and those planning to do so should notify the Committee Chairman, Mr. A. F. Ganier, not later than May 5 in order that reservations may be made. He will prepare a mimeographed letter of information on April 20 and this will be sent to those requesting it. A full attendance from all parts of the State is expected. Communications should be sent to the Chairman at 2112 Woodlawn Dr., Nashville 12, Tenn.—MRS. BEN B. COFFEY, JR., President.

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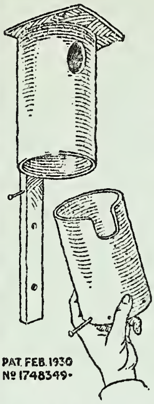

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WESTERN MEADOWLARK NESTING AT MEMPHIS

By R. DEMETT SMITH

The addition of the Western Meadowlark **(Sturnella neglecta) as a breeding** bird in Tennessee was accomplished upon the finding of a nest near Memphis on May 20, 1951, by Mrs. Floy Barefield and the writer.

On March 11, 1950, we had the pleasure of recording two of these birds as a second State record (MIGRANT, 1950, 21:50) in the same field at Shelby County Penal Farm, in which the above-mentioned nest was found. They again appeared on December 3, 1950 (MIGRANT, 1951, 22:13) and at least three birds stayed throughout the winter. With the continued stay of a pair this spring and into May, Ben B. Coffey made weekly checks and correctly assumed during the May trips that absence of the female indicated incubation had begun. Attempts to find the nest in the meadow by rope dragging and close searching failed. When the Coffeys left for vacation in Mexico, we were left alone with the job.

The afternoon of Saturday May 19th showed both birds to be present. The male was found first by his "chucking" note which is distinctive, and the hunt for the nest was begun again. A small area around where he was first seen was dragged but produced nothing. The female soon appeared and both birds sat on a fence giving alarm notes but no indication as to the location of their nest. There were no other meadowlarks closer than 200 yards, which left a rather large area to be worked and the Westerns seemed to use the whole area indiscriminately. The male never sang when he could see us but frequently burst into song when he thought us gone. At length the female was observed with food in her beak and the hunt became one of "cherchez la femme" for she lit in the grass and was immediately lost to sight. The male's sole function during this game of hide and seek was an excellent lookout for, and director to, the hidden female. At no time did he participate in the feeding (this possibly due to our presence), but was a faithful companion to his mate either afield or standing by during her attempts to feed. He was the perfect decoy with his near position in the open and with his constant alarm note. She was the master of slipping unseen through the grass for she often lit 100 or more feet from the nest, to be seen no more until flushed. By the end of our three hour stay we had reduced the area still to be worked to one having a diameter of about 200 feet.

The following afternoon, Sunday May 20th, we stationed ourselves on opposite sides of this small area. Three times the female dropped in between us and each time after 15 or 20 minutes she flushed, presumbly due to some movement on our part. Each time she flew to the fence near the directing male and dropped the food intended for the young. Her various positions of entrance and exit had by now cut the area to about a 30 ft. square. The young were bound to be hungry, but the fourth time she still lit a good distance away and took nearly 20 minutes to work her way to a point near the nest. Once again she returned to the fence, her mission unaccomplished, but we were now so certain of the position of the nest that we were able to walk right to it.

The nest was placed about 20 feet from a little used gravel road, in the edge of one of the many scattered patches of ranker growth. It was stretched considerably by the six well feathered young. The young were banded the following morning and two made slight attempts to slip away into the tall grass. The next morning, May 22nd, all had left the nest. One was found with little effort about 15 feet from it.

After careful consideration and in the hope that this family might form the nucleus for a breeding population in Tennessee, it was decided to wait until next summer to obtain a breeding specimen. It might be well to state here that the State record for the Western Meadowlark is authenticated by a specimen taken about 5 miles south of the Penal Farm (MIGRANT, 1943, 14:77).

127 N. MONTGOMERY ST., MEMPHIS, TENN.

THE 1951 SPRING FIELD DAYS AND THE SEASON

The earliest Spring Field Days this year were on April 29, held by the Greeneville and Bristol Chapters. Four other chapters: Memphis, Knoxville, Kingsport, and Elizabethton, held their big days on May 5 or 6. The grand finale was the annual meeting and field trip of the T. O. S. on May 12 and 13 at Standing Stone State Park, near Livingston, Tenn. A total of 170 species of birds was observed throughout the State. Several rarieties were seen, and notes on these are included in the section describing each area, but the greatest value of this report probably is the general picture it gives of birds over the State at this time of the year.

The number of birds observed are summarized in the Table. For each area there is a general description giving background information on the Field Day held there. From some chapters came seasonal summaries, and these are included here with the general information. Notes for "The Season" also came from Lebanon, and these are included here even tho that chapter held no separate Field Day. For further information on the records marked with an asterisk or included within parenthesis see the remarks for the field trip on that locality.

Greeneville.—April 29, 1951. Same area as in the 1950 Christmas Count lying within a circle of 7½ miles radius centered on Greeneville. The day was partly cloudy, temperature about 80 degrees, with a moderate breeze. Nine people participated, working in four parties. C. M. Shanks, compiler.

Bristol.—April 29, 1951. Vicinity of Bristol Tenn.-Va. 5:00 a. m. to 7:30 p. m. Low fog in morning, clear in afternoon, temperature 57 to 75 degrees, wind zero to 8 miles per hour from west. Fourteen people participated. The two American Egrets were seen near Bluff City by Dr. Lee R. Herndon. Most of the shore birds were observed at Saltville, Virginia.

This spring has been excessively damp, and this combined with cool temperatures made the trees quite late in getting leaves. Compared with last year, the severe cold snaps were lacking, which made waves of migrants entirely absent. Instead most species seemed to trickle thru about on time but in small numbers.

The weather seemed to have made little difference in the nesting activities of either spring arrivals or residents. Noticeably scarce have been Nuthatches of both species and the Golden-crowned Kinglet, even in its breeding grounds. As an incidental note, a Broad-winged Hawk was observed at 5500 feet on Mt. Rogers on May 13 carrying nesting material. A Chuck-will's-widow was heard on the King College campus at Bristol in the latter part of April by Dr. B. A. Barrington; this is possibly the most northern record in the area.—STEPHEN M. RUSSELL

Memphis.—May 6, 1951. Lakeview, Miss.-Tenn., and Riverside Park. Species observed outside of this area are included in parenthesis. 6:00 a. m. to 7:00 p. m. Weather changing from cloudy to light rain to fair, temperature from 59 to 56 to 62 degrees, wind from 5 to 15 miles per hour, south to west. About ten observers participated thru-out the entire day, eighty being present part of the time. —BEN B. COFFEY, Jr. compiler.

Four Pied-billed Grebe nests, two with eggs, were found. The Alder Flycatcher was seen by Ben Coffey at a distance of twenty feet, and its call note was heard several times. The Chipping Sparrow was reported by Kilian Roever.

The migration of Golden Plover this spring was as heavy as last spring with Demett Smith seeing about 1400 in the Walls-Lake Cormorant, Miss., area on Mar. 24. On Mar. 18, the Coffeys found small flocks west to about Forrest City, Ark., and on the 25th at the Ft. Pillow farm, then Covington, and three areas near Ridgely, Tenn. Some 49 were still present on April 15 at the Shelby County Penal Farm. Upland Plovers were regularly seen in small numbers. The usual shorebird species were disappointing in numbers even at favorable pits near Coldwater, Miss. The Greater Yellowlegs, usually uncommon, could be termed fairly common this season.

The early transients were slightly late while others appeared on schedule but becoming common later than usual. The Blue-gray Gnatcatcher did not appear until April 1 (Spring Lake S. P., Miss.) and April 6 in Overton Park, being common at the latter only on April 19-21. The Tennessee Warbler, on schedule, did not become common until May, being present later than usual. The Myrtle Warbler continued uncommon from winter into spring and the White-throat also was in reduced numbers in the park. On the other hand, the migration of Indigo Buntings and Dickcissels was heavier, perhaps, than other seasons. A Mourning Warbler on May 15 was my first record for Overton Park in 23 years; another was seen April 29 at Lakeview, Miss., by Mrs. Floy Barefield.—BEN B. COFFEY

TABULAR RECORD OF SPRING FIELD DAYS

SPECIES	Greeneville Apr. 23	Bristol Apr. 23	Memphis May 6	Knoxville May 6	Kingsport May 5	Elizabethton May 6	Standng Stone May 12-13
Pied-billed Grebe	-------	4	*1	1	-------	4	-------
Great Blue Heron	-------	4	10	-------	-------	-------	-------
American Egret	-------	*2	10	-------	-------	-------	-------
Little Blue Heron	-------	-------	3	-------	-------	-------	-------
Green Heron	3	3	4	4	2	3	2
Black-crowned Night Heron	-------	-------	-------	-------	2	-------	-------
American Bittern	1	-------	4	-------	-------	-------	-------
Least Bittern	-------	-------	2	-------	-------	-------	-------
Blue-winged Teal	-------	8	39	1	-------	-------	-------
Baldpate	-------	1	-------	-------	-------	-------	-------
Wood Duck	-------	2	1	3	-------	3	-------
Lesser Scaup	-------	10	13	-------	2	-------	(3)
Red-breasted Merganser	-------	-------	-------	-------	-------	1	-------
Turkey Vulture	7	13	2	5	28	4	3
Black Vulture	2	3	7	-------	8	8	-------
Mississippi Kite	-------	-------	(2)	-------	-------	-------	*1
Sharp-shinned Hawk	-------	-------	-------	-------	-------	-------	1
Cooper's Hawk	1	1	(1)	3	1	(1)	1
Red-tailed Hawk	-------	-------	2	-------	-------	2	2
Red-shouldered Hawk	-------	-------	1	-------	-------	-------	-------
Broad-winged Hawk	-------	-------	1	1	-------	-------	1
Golden Eagle	-------	-------	-------	-------	-------	-------	*1
Osprey	-------	2	-------	-------	-------	-------	-------
Sparrow Hawk	6	6	4	2	1	4	-------
Ruffed Grouse	1	2	-------	-------	-------	4	-------
Bob-white	23	5	8	15	6	19	5
King Rail	-------	-------	-------	2	-------	-------	-------
Sora Rail	-------	-------	7	-------	-------	-------	(1)
Coot	-------	7	1	-------	-------	-------	-------
Semipalmated Plover	-------	1	-------	-------	-------	-------	(1)
Killdeer	8	20	4	8	24	13	(2)
Wilson's Snipe	-------	1	3	1	-------	-------	-------
Spotted Sandpiper	1	10	3	4	8	5	6
Solitary Sandpiper	1	2	5	7	-------	1	2
Greater Yellowlegs	-------	9	1	-------	1	-------	-------
Lesser Yellowlegs	-------	19	1	1	2	-------	1
Pectoral Sandpiper	-------	1	-------	-------	-------	-------	-------
Least Sandpiper	-------	-------	-------	-------	-------	-------	(3)
Black Tern	-------	-------	-------	-------	-------	*1	-------
Mourning Dove	63	53	12	64	27	9	3
Yellow-billed Cuckoo	2	-------	1	6	2	-------	4
Black-billed Cuckoo	1	-------	-------	1	-------	1	4
Barn Owl	-------	2	-------	-------	-------	-------	-------
Screech Owl	1	1	-------	1	1	-------	-------
Barred Owl	-------	-------	-------	-------	-------	2	1
Chuck-will's-widow	-------	-------	(4)	9	2	-------	-------
Whip-poor-will	-------	2	-------	3	-------	3	3
Nighthawk	2	4	(12)	1	1	4	1

Chimney Swift	58	139	10	92	141	120	c
Ruby-throated Hummingbird	16	7	10	20	9	6	fc
Belted Kingfisher	2	2	1	6	3	8	2
Flicker	30	52	1	19	27	38	5
Pileated Woodpecker	4	1	2	6	2	------	3
Red-bellied Woodpecker	4	1	5	7	5	------	5
Red-header Woodpecker	1	1	4	10	1	------	------
Hairy Woodpecker	2	------	2	1	------	(2)	2
Downy Woodpecker	10	14	3	16	6	7	3
Eastern Kingbird	8	13	26	12	14	*28	(3)
Crested Flycatcher	19	8	12	21	20	4	fc
Phoebe	26	45	------	19	19	37	c
Acadian Flycatcher	------	1	2	7	2	3	c
Alder Flycatcher	------	------	*1	------	------	------	------
Least Flycatcher	------	------	------	------	1	31	------
Wood Pewee	10	4	13	14	16	14	fc
Horned Lark	------	------	1	1	2	4	------
Tree Swallow	------	------	75	------	24	5	*1
Bank Swallow	------	------	53	------	2	------	------
Rough-winged Swallow	8	17	82	28	23	25	8
Barn Swallow	9	10	34	5	9	16	2
Cliff Swallow	------	------	------	3	3	12	------
Purple Martin	49	------	7	27	27	6	2
Blue Jay	52	138	11	27	56	33	4
Raven	------	------	------	------	------	(3)	------
Eastern Crow	25	73	17	49	68	73	7
Fish Crow	------	------	7	------	------	------	------
Carolina Chickadee	33	34	15	39	34	43	10
Tufted Titmouse	34	31	11	33	45	43	fc
White-breasted Nuthatch	------	1	1	5	10	------	3
Brown Creeper	------	------	------	------	1	------	------
House Wren	10	11	------	------	10	3	------
Winter Wren	------	------	------	------	------	(7)	------
Bewick's Wren	11	5	1	9	5	9	(1)
Carolina Wren	34	53	14	50	37	46	5
Long-billed Marsh Wren	------	------	3	------	------	------	(1)
Short-billed Marsh Wren	------	------	5	------	------	------	------
Mockingbird	41	39	9	63	41	18	2
Catbird	37	99	4	35	30	90	7
Brown Thrasher	36	44	4	30	29	30	2
Robin	79	126	14	55	117	167	------
Wood Thrush	24	37	10	39	87	92	fc
Olive-backed Thrush	1	------	4	11	11	6	fc
Gray-cheeked Thrush	------	------	1	------	2	------	------
Veery	------	------	5	2	------	(2)	------
Eastern Bluebird	35	62	6	39	34	34	4
Blue-gray Gnatcatcher	33	14	------	13	29	1	c
Golden-crowned Kinglet	2	------	------	------	1	(3)	------
Ruby-crowned Kinglet	------	3	------	------	------	------	------
Cedar Waxwing	20	35	10	3	82	44	1
Loggerhead Shrike	------	1	2	1	------	------	------
Starling	86	170	3	100	100	118	------
White-eyed Vireo	9	31	12	9	13	19	fc
Yellow-throated Vireo	1	3	1	13	12	2	fc
Blue-headed Vireo	------	1	1	2	------	(3)	------
Red-eyed Vireo	8	21	14	67	51	116	c
Philadelphia Vireo	------	------	------	------	------	------	*7
Warbling Vireo	------	------	4	5	2	5	------

Black and White Warbler	8	16	1	12	11	53	8
Prothonotary Warbler	2	-------	17	5	1	-------	1
Worm-eating Warbler	1	-------	-------	-------	1	18	4
Golden-winged Warbler	-------	1	-------	-------	-------	(2)	-------
Tennessee Warbler	-------	-------	19	15	7	-------	c
Nashville Warbler	-------	-------	2	1	2	-------	-------
Parula Warbler	-------	14	9	-------	7	36	6
Yellow Warbler	34	100	18	32	29	57	5
Magnolia Warbler	3	-------	1	13	7	3	2
Cape May Warbler	-------	3	-------	13	10	12	3
Black-throated Blue Warbler	-------	-------	-------	-------	6	62	-------
Myrtle Warbler	19	2	15	11	54	19	(1)
Black-throated Green Warbler	1	8	(1)	13	4	13	4
Cerulean Warbler	-------	-------	1	-------	1	1	fc
Blackburnian Warbler	2	3	(1)	12	10	5	2
Yellow-throated Warbler	1	2	10	7	3	1	-------
Chestnut-sided Warbler	7	1	-------	22	8	34	5
Bay-breasted Warbler	1	2	2	13	11	13	fc
Black-poll Warbler	1	-------	4	26	3	1	4
Pine Warbler	-------	1	-------	4	-------	-------	-------
Prairie Warbler	-------	24	-------	4	11	5	fc
Palm Warbler	-------	-------	-------	1	-------	-------	-------
Oven-bird	3	9	1	9	5	54	10
Northern Waterthrush	-------	-------	-------	1	1	-------	*1
Louisiana Waterthrush	8	4	(1)	5	9	14	8
Kentucky Warbler	4	2	7	13	11	7	fc
Mourning Warbler	-------	-------	-------	-------	-------	-------	*1
Yellow-throat	31	33	41	37	16	31	7
Yellow-breasted Chat	10	25	24	34	25	18	fc
Hooded Warbler	1	7	8	8	5	51	fc
Wilson's Warbler	-------	-------	1	-------	-------	-------	-------
Canada Warbler	1	-------	-------	-------	-------	14	3
Redstart	2	27	14	4	8	11	fc
English Sparrow	64	102	-------	39	30	77	1
Bobolink	2	1	310	40	17	9	(1)
Eastern Meadowlark	84	92	34	44	50	89	(4)
Red-winged Blackbird	80	149	105	83	32	61	(8)
Orchard Oriole	14	7	37	28	12	5	(2)
Baltimore Oriole	-------	9	13	3	4	7	3
Purple Grackle	73	225	42	40	63	57	(3)
Cowbird	12	42	72	34	20	38	8
Scarlet Tanager	12	5	-------	9	18	23	fc
Summer Tanager	14	5	15	32	17	3	fc
Cardinal	69	147	50	126	123	89	c
Rose-breasted Grosbeak	1	6	8	4	17	8	5
Indigo Bunting	32	33	255	112	136	98	c
Painted Bunting	-------	-------	4	-------	-------	-------	-------
Purple Finch	-------	-------	-------	-------	2	-------	-------
Dickcissel	-------	-------	450	5	-------	-------	-------
Pine Siskin	-------	-------	-------	-------	10	-------	-------
Goldfinch	53	189	17	23	167	157	c
Red-eye Towhee	37	61	1	54	89	66	fc
Savannah Sparrow	1	1	25	5	3	1	(2)
Grasshopper Sparrow	44	10	1	14	22	9	-------
Vesper Sparrow	-------	-------	-------	-------	1	24	-------
Bachman's Sparrow	3	3	-------	-------	2	-------	-------
Slate-colored Junco	-------	-------	-------	-------	-------	(26)	-------
Chipping Sparrow	36	71	*1	36	16	54	c

Field Sparrow	54	57	1	47	79	47	5
White-crowned Sparrow	18	5	7	1	23	4	-------
White-throated Sparrow	20	55	35	28	51	11	2
Lincoln's Sparrow	-------	-------	16	-------	-------	*1	-------
Swamp Sparrow	1	4	5	-------	-------	-------	(1)
Song Sparrow	67	121	-------	85	93	114	-------
TOTAL SPECIES	96	111	123	113	116	114	106

Knoxville.—May 6, 1951. Within a circle of 7½ mile radius centered on Sharp's Gap in northwestern Knoxville. Observations began at daybreak and culminated for most of the participants at noon at a meeting at the home of Harry Ijams. Weather was fair and cool. About 18 people participated.

Cold weather persisted into April this year, and it seemed to delay the arrival of many migrants. The largest number arrived between April 21 and 29, when 35 different species were reported for the first time this year. Herring and Ring-billed Gulls were last seen on April 30. The nest of a King Rail containing five eggs was found by Joseph C. Howell on April 29.

Kingsport.—May 5, 1951. Within a circle of 10 miles radius centering on the Civic Auditorium in Kingsport; includes pasture 50%, woodland 40%, and residential area 10%, as well as rivers and the fish hatchery at Gray's Station. 5:00 a. m. to 10.00 p. m. Showers and overcast with occasional sunshine, temperature from 55 to 60 degrees, no wind. 24 observers in 8 parties. —W. C. McHORRIS, compiler.

Elizabethton—May 6, 1951. Area around Elizabethton, including Roan Mountain; the species observed only on Roan Mountain are indicated by a parenthesis enclosing the number. Weather clear and sunny until mid-morning, subsequently cloudy and with a brief shower in the afternoon, sleeting on Roan Mt. at noon; cool; light to medium northwest wind. 3:30 a. m. to 6:15 p. m. Ten participants,—FRED W. BEHREND, compiler.

The Black Tern was observed by Dr. L. R. Herndon and Dickie Hughes on Watauga Lake. The Lincoln's Sparrow was observed by Mr. and Mrs. Evans. Of the Kingbirds, a flock of 20 were perched on a wire fence and in an adjacent field near Smalling's Bridge, seen by Mr. and Mrs. L. R. Herndon and Dickie Hughes.

In regard to the season, the temperature has been lower with a minimum of 30 degrees on April 18, and therefore the spring season later than the average. Rainfall for March was approximately average while for April it was below normal. Of 63 migrating species, the arrival dates for 54 averaged 10.5 days later than the earliest during the past seasons. Twenty days or more later than the earliest records were the Green Heron, Purple Martin, Yellow Warbler, Ovenbird, Yellowthroat, and Orchard Oriole. The latest of these was the Yellowthroat, 21 days. Six species arrived from one to nine days earlier than the earliest dates previously recorded; these are, with this year's arrival dates: Upland Plover, 5 on April 15 (L. R. Herndon); Hummingbird, April 20; Tennessee Warbler, April 27, the second spring record (E. Evans); Nashville Warbler, April 26 and 30 (L. R. Herndon), these records constituting the second and third spring records for this species;

Cape May Warbler, April 26; Pine Warbler, April 27; Canada Warbler, April 30. A Magnolia Warbler seen on April 8 probably was a wintering individual (see MIGRANT 22:18).

The Old Squaw Duck remained on Wilbur Lake until April 18. Two mature Little Blue Herons seen on April 21 (one on the 22nd) by F. W. Behrend are the first adult birds of this species recorded in Carter County. The following are also first records or first spring records for Carter County: Philadelphia Vireo, April 18 and 19 (E. Evans); Pectoral Sandpiper, April 15, (Mr. and Mrs. C. L. Broley); Yellow-throated Warbler, Sept. 25, 1950 (E. Evans), April 26, 1951 (L. R. Herndon), and May 5 (E. Evans).

Woodpeckers and Nuthatches have been extremely scarce during the winter and spring.—LEE R. HERNDON.

Standing Stone State Park.—May 12-13. Several field trips were held during the annual meeting of the T. O. S. at this state park near Livingston, Tenn. Most of the observations were made within the heavily wooded park, which contains a lake, several small streams, and a few open areas. The weather was clear and cool with little wind. There were over 90 people present, and because of the number of people and the fact that much of the area was worked repeatedly by separate parties it was not practical to get a count of the number of birds seen that belong to the commoner species; therefore these were designated as "fc" for fairly common and "c" for common species. The figures enclosed within parentheses indicate that these species were observed outside the park, mostly at a small lake near Livingston.

For more notes on the Mississippi Kite and the Golden Eagle, see THE ROUND TABLE of this issue. The Tree Swallow was indentified by Jim Tant, the Northern Waterthrush by Howard Barbig, and the Mourning Warbler, which was singing, by James T. Tanner. Six of the Philadelphia Vireos were first found by Demett Smith and the seventh by Ben Coffey.

The Season at Lebanon.—The recently organized Lebanon Chapter has commenced keeping a complete record of the reports of its members, with Mrs. Henry Waters maintaining the record. Sixty-one species of birds have been reported since March 1, and of these, 23 species have shown little change in numbers during this period. The greatest numbers of these permanent residents are for the Cardinal, Robin, English Sparrow, and Meadowlark. The fewest counts are for the Great Blue Heron, Pileated Woodpecker, Killdeer, Screech Owl, and Phoebe. Several members have commented on the scarcity of Killdeers.

Since Feb. 10, shortly after the extreme cold, there have been no reports of the Brown Creeper, Myrtle Warbler, Yellow-bellied Sapsucker, Hairy Woodpecker, and Goldfinch.

First arrival dates are: Orchard Oriole, Chimney Swift, and Catbird, April 2; Purple Martin, April 20; Crested Flycatcher, April 25 (?); Red-headed Woodpecker, April 26 (two nests constructed by this pair on the Cumberland University campus were taken by Starlings); several species were not reported for the first time until the first week in May.

Two Black Vulture nests were found with two eggs each on April 8 under limestone crevices. Two quarter-pound young and one egg were observed in one nest and two recently hatched young in the other on May 5. On May 10 the young of the former nest weighed nearly a pound, but only remains of a foot were found in the latter nest.—JAMES W. SHAW.

THE ROUND TABLE

MISSISSIPPI KITE AND GOLDEN EAGLE IN OVERTON CO., TENN.—On the morning of Sunday, May 13, 1951, both of the above species were observed by the writer and other members of the T. O. S. who had gathered at Standing Stone State Park for the Society's annual meeting.

The Kite was first observed at 7:30 a. m., while circling 300 feet above the trees about the headquarters buildings and it gradually soared eastward over the adjacent lake. The long, pointed wings, long tail, and manner of flight were conclusive evidence. Indistinct barrings across the tail showed it to be a year-old bird. (For description of plumage at this age, see Bent, vol. 167, p. 67). Three hours later, another individual or perhaps the same one was seen about 1.5 miles eastward, by Dr. and Mrs. James T. Tanner, circling over the F. F. A. group camp. This Kite breeds regularly in the Memphis area but the only previous record for the State, east of West Tennessee, is that of one seen by Austin Burdick over Shelby Park at Nashville on June 12, 1941 (MIGRANT 12:38).

The Golden Eagle was observed at 10 a. m., soaring over and about the high hills east of the lake, in company with a pair of Red-tailed Hawks. It too was an immature bird, having the large whitish patch beneath the "wrist" of the wing, the whitish inner half of the tail and the sprinkling of white and buff on the neck. The size, contour, and manner of flight provided further identification. The bird reappeared several times during the following half hour and was viewed by a dozen observers. At times it soared with the Red-tails and at others it rose aimost beyond reach of the naked eye. It was perhaps a visitor for the day in the 8,700 acre densely forested park, and its headquarters were most likely to be in the almost unsettled, cliff-clad region of the Obey river some 25 miles eastward, where I found them in breeding season a number of years ago. The numerous knob-like hills rise 700 feet above the lake surface, to an elevation of 1400 feet above sea level, and this topography produces thermals (upward air currents) in which raptorial birds like to soar. At approximately the same place during the two days, other hawks seen were the Broad-wing, Cooper's, and Sharp-shin, as well as the Kite above mentioned.—ALBERT F. GANIER, 2112 Woodlawn Dr., Nashville, Tennessee.

HAWK MIGRATION AT NASHVILLE.—On Sept. 30, 1950, near Nashville, the writer observed migrating flocks of hawks, some and perhaps all of which were Broad-winged Hawks. The first group, of five, were seen circling over Gale Lane which is on the southern outskirts of the city and were identified as of this species by the wide tail-bands and their buteo outline. The writer was accompanied by three fellow Boy Scouts and we were beginning a hike, one of the objectives of which was to look for migrating hawks. At nine o'clock, a half hour later, we had arrived in the wooded hills near Radnor Lake and at this point one of my companions pointed out a flock far toward the horizon. On looking them over with my 6x binoculars, I could easily see that they were hawks of the buteo type. With the aid of the glasses, I counted fifty-six in the flock and one of my companions counted the same number with naked eye. As we completed this count, I raised my glasses and discovered another flock, of apparently the same kind of hawks, above and farther away than the first flock. As they moved about among themselves, we were unable to make an accurate count but finally settled on eighty-five as the number. While we watched, a hawk that we could definitely identify as a Broad-wing sailed across the field where we were standing and we decided that those distant specks of birds fading in the distance were most likely of this species. Mrs. F. C. Laskey, of Nashville, has record of a similar migration several years ago in the same vicinity.—FAIRMAN CUMMING, 824 Sutton Hill Road, Nashville 4, Tenn.

LAUGHING GULL OBSERVED FOR FIRST TIME AT MEMPHIS.—The Laughing Gull **(Larus atricilla)** is commonly a bird of the Atlantic and Gulf Coasts. It is listed (Ganier, "Distributional List of Birds of Tennessee" 1933) as accidental based on a record of one collected from a flock of six near Knoxville on September 18, 1932 (MIGRANT, 1933. v. 4: 8-9). The only other records are of a single blackheaded bird taken about 1915 near Del Rio in Cocke Co., eastern Tennessee (MIGRANT, 1935. v. 6:50), and an immature bird collected August 9, 1938, by Tom Simpson at Reelfoot Lake (MIGRANT, 1938. v.9:68).

On May 7, 1950, while on an early morning trip to the Mississippi River, Mrs. Floy Barefield, her son Cooper, and I suddenly saw a small black-headed gull which was feeding with the larger Ring-billed Gulls between the point of Mud Island and the projection of the bluff at the foot of Beale and Riverside. A careful observation for approximately fifteen minutes, as close as fifty feet, was made of the bird. The solid dark wings with the black-tipped primaries at once clinched the identification as a Laughing Gull. Plato Tuliatos later the same morning observed the gull and on the following day Ben Coffey was able to get excellent views of the bird.—R. DEMETT SMITH, P. O. Box 55, East Station, Memphis, Tenn.

BLACK-BILLED CUCKOO NESTING NEAR JACKSON, TENN. — On June 5, 1950, at the West Tennessee Experiment Station one mile west of Jackson, Tenn., I came upon a cuckoo sitting on its nest about seven feet from the ground. I supposed that it was the common Yellow-billed Cuckoo.

It left the nest, and when I climbed up to look, I found there were three blue-green eggs. On June 11 while with Mr. and Mrs. Ben B. Coffey and Demett Smith I decided to show them the nest altho I did not think it would be of much interest. This time the cuckoo had its head in plain sight and Mr. Smith observed that it had a black lower mandible. We then checked it for the red eye, even-colored wings, and narrow tips on the tail feathers. The bird flew before we could photograph it. It was without doubt a Black-billed Cuckoo **(Coccyzus erythrophalmus)**.

On June 12 there were two young in the nest. At this time both parents were feeding them. On June 15 I went to the nest and found the adults feeding one bird on the ground which had thick black pinfeathers. The other young bird was in the nest. One egg never hatched and was still in the nest at this time.

As far as I have been able to find out, this is the southernmost record for Black-billed Cuckoos' nesting in Tennessee with the exception of the mountains of east Tennessee. It has been found nesting at Nashville. — KILIAN ROEVER, Route 2, Jackson, Tenn.

CHATTANOOGA REVISITED.—In a Round Table note of the June-Sept., 1942, issue (pages 47-48), I mention finding Cliff Swallow nests at Chattanooga, July 21, 1942, under the Market Street Bridge. The note following that one gave some other results of a few hours afoot,—free time from the Army Induction Center, and included reference to the presence of Song Sparrows, not previously recorded in summer that far south in our State. In June of this year Mrs. Coffey and I spent the night of June 17 at Chattanooga, on our way northeast, and birded some on Lookout Mountain late in the evening and until noon of the 18th there and on Signal Mountain with stops in between at the bridge and the two previous Song Sparrow areas where they were still fairly common (12 singing). Being earlier in the season than before we were able to get a better estimate of the number of Cliff Swallows there and counted approximately 110 nests. These were under the overhanging sidewalk slabs at the top. On several intervening occasions Mr. L. C. Moser, T.O.S. member of Iuka, Miss., has kindly verified the continued presence of the swallows there.

The common species on Lookout (Tennessee portion) were the Towhee, Red-eyed Vireo, Wood Thrush, and Chipping Sparrow, followed by the Hooded Warbler, Carolina Wren, and Yellow-throated Vireo. Additional warblers were: Oven-bird, Black and White, Kentucky, Pine, Redstart, and Sycamore. On Signal Mountain the Indigo Bunting was next most common to the Red-eyed Vireo, while the Towhee was only fairly common. The only Field Sparrows were there, and a Black-throated Green, and two Prairie Warblers, and four Oven-birds were noted. The Yellow-throat was found with the Song Sparrows, and along the north shore of the Tennessee River, at the bridge, we found four male Yellow Warblers. We might add that the songs of two Song Sparrows were heard as we drove thru Cleveland on our way northeast.—BEN B. COFFEY, Jr., Memphis, Tenn.

CERULEAN WARBLER'S NEST IN NASHVILLE AREA.—This report is to record observations on a Cerulean Warbler **(Dendroica cerulea)** nest at Basin Spring, twenty miles southwest of Nashville and in the South Harpeth River Valley.

On May 7, 1950, a small trim bird was observed building a nest about fifty feet from the ground, far out on an overhanging branch of an American Elm. The height of the nest from the ground, the small size of the bird and its quick movements as well as the poor light of late afternoon militated against identification.

May 14 there was no activity at the nest which appeared completed.

May 20 the incubating bird sat well down in the nest. Incubation continued through May 21, 25, 27. The incubating bird was not observed to leave the nest nor a mate to approach. During this three weeks of anonymity a male Cerulean sang regularly within the immediate area. Descriptions of the female Cerulean and the characteristic location of its nest supported the suspicion that the singing Cerulean belonged to the nest high in the elm.

On May 28 the female flew to and from the nest at frequent intervals, apparently feeding and brooding young. Careful observation while she perched showed wing-bars, pale eye-stripe, the palest buffiness on the breast beneath the shoulder and the faintest lateral streaking on the breast. Each detail confirmed my suspicion, but it was not until her mate came to feed the nestlings that identification of the nest as that of the Cerulean Warbler became certain.

Birds may be suspected of breeding in an area long before proof-positive is established. G. R. Mayfield identified a singing male Cerulean Warbler at Radnor Lake in late May, 1916, and suspected its nesting there. A. F. Ganier collected the bird the same season to confirm its identity. However "proof-for-certain" of a nesting pair must derive from either nest-building (except so-called dummy nests), a nest with eggs, an incubating bird, or adults feeding nestlings or fledged young. H. C. Monk watched a male Cerulean feed young away from the nest on June 15, 1946, in Percy Warner Park. Other records have not come to my attention and it has been suggested that my observations of an active Cerulean's nest from building through incubation and feeding of nestlings may be the only such record to date for the Middle Tennessee area. Record of a nest at Athens in East Tennessee was made by Richard Gettys whose notes read, "Found nest of Cerulean Warbler on June 5, 1904." (Migrant, 1934, 5 (1); p. 3).

In two additional nearby territories I watched adult Ceruleans feed fledged young on July 1 and on July 9. I would not presume to claim three broods from three separate pairs for June-July, 1950, without certain reservations, but I can state that in my judgement the brood seen July 1st was less independent than young from the observed nest would have been after almost a month aflight, and that the brood seen July 9th was less well feathered than the brood observed on July 1.

Singing males were recorded in at least two additional but well removed areas during the same season so that our Basin Spring woodland would seem to offer a fine opportunity for an accumulation of data on the activities of the Cerulean Warbler.—KATHERINE A. GOODPASTURE, 408 Fairfax Ave., Nashville, 5, Tennessee.

SOME EAST TENNESSEE BIRD OBSERVATIONS. — Surf Scoter **(Melanitta perspicillata)**. A single female, or immature, individual was observed on November 5, 1950, five miles north of Andersonville, Anderson County, Tenn., on Norris Reservoir. The Scoter was one of a mixed flock of about thirty ducks which were about 300 yards offshore. The bird was observed under favorable light conditions for about fifteen minutes as it rested on the water and later as it took off and circled overhead. As it flew past it was possible to determine that it did not have white wing patches.

House Wren **(Troglodytes aedon)**. Henry Meyer (1946, **Migrant**, p. 14) reported a number of occurrences of this species in the Knoxville region during the nesting season but observed no successful nestings. My first observation was of a singing male seen near Corryton in northeast Knox Co., on July 16, 1949. No nest was found. On July 4, 1950, in the Lonsdale section of Knoxville I was shown a House Wren nest in a suspended gourd in the backyard of a private home. The homeowner, Mr. R. C. Ailor, and his wife, took an interest in the activities of birds and they told me that the nest contained eggs. A male House Wren sang in the apple tree above the suspended nest and a second individual was seen to leave the nest. In this same yard in a tool house 75 feet from the first nest was a second nest of this species. The male of this pair sang frequently as I talked with the Ailors. A third singing male heard in a yard three blocks away from the Ailor home seems to indicate that this species is becoming established as a breeding bird.

Blue Grosbeak **(Guiraca cacrulea)**. This species seems definitely to be occurring in the Knoxville region with increasing frequency. A male was observed by James T. Tanner near Knoxville on May 2, 1948. On July 4, 1948, the writer observed a singing male near Hardin Valley in western Knox County. No nest or mate could be located. On July 5, 1948, a male carrying a large insect in its bill was observed near Kimberlin Heights in southeastern Knox Co. Again no nest could be located. A singing male was observed on June 7, 1949, near Heiskell in the northwestern section of Knox County. Neither a mate nor a nest was observed. On September 5, 1949, four Blue Grosbeaks were seen near Concord in southwestern Knox County. These birds were together and perhaps constituted a family group. A singing male was observed in the northern part of Knox County on May 7, 1950. These observations indicate that this species is lightly distributed over the entire county throughout the breeding season. While no nest has as yet been found in Knox County the above observations indicate that it probably does nest.—J. C. HOWELL, Dept. of Zoology, Knoxville, Tenn.

REPORT OF THE ANNUAL MEETING

The 1951 Annual Meeting of the Tennessee Ornithological Society was held at Standing Stone State Park, near Livingston, Tenn., on May 12 and 13. About ninety-five people attended; there were representatives from every chapter except Bristol and a delegation of visitors from Kentucky and another from Alabama. Lodging was provided by the cabins and meals by the tea room of the State Park, and this resulted in a convivial atmosphere and in many opportunities to meet and talk with people. The Park contains fine woods, a lake, several streams, and a few fields, and a large share of the time was spent in the field looking for birds. This was perhaps the outstanding way in which this meeting differed from previous meetings, because the close proximity of living quarters and the places where birds were abundant encouraged spending as much time as possible outdoors. The weather was ideal. A summary of the birds observed during the two days is presented in this issue in the report on the Spring Field Days.

Field trips started on Saturday morning and continued thru the day. The directors' meeting was held at 4:00 p.m. on that day. After supper a general meeting was held in the lodge, before a welcome open fire. During this meeting three talks were given: on winter birds of the mountain tops in eastern Tennessee, by Fred Behrend; on waterfowl on Kentucky Lake, by Eugene Cypert; and on Black Vulture nests, by James W. Shaw. An exhibit of photographs of birds, scenes, and nature objects almost covered three walls of the large lodge room. A vote was held to determine the best photographs, and Dr. Charles Pickering of Clarksville won the top honors.

More field trips were made on Sunday morning. Immediately after dinner the final business meeting was held. The actions of the directors in the meeting of the previous afternoon were approved. These items included the reports of the treasurer, editor, chairman of the planning committee, and chairman of the membership committee; all these reports indicated that the Society is healthy. Fred Behrend was appointed to coordinate studies of hawk migration. Dr. George Mayfield was appointed a representative of the T. O. S. to be at a hearing held by army engineers on a project concerning Reelfoot Lake. The meeting place for 1952 was tentatively chosen, Montgomery Bell State Park. It was announced that the 1952 meeting of the Wilson Ornithological Club, a society with nation-wide membership, was to be held at Gatlinburg, Tenn., and that the T. O. S. would act in sponsoring this meeting to be held in late April.

The following officers were elected: President—Albert F. Ganier of Nashville, Vice-President for West Tennessee—Kirby Stringer of Memphis, Vice-President for Middle Tennessee—Mrs. E. W. Goodpasture of Nashville, Vice-president for East Tennessee—Fred W. Behrend of Elizabethton, Secretary—Edwin D. Schreiber of Nashville, Treasurer—Lawrence G. Kent of

Memphis, Editor—James T. Tanner of Knoxville, Curator—Ben B. Coffey of Memphis, Director-at-large from West Tennessee—Eugene Cypert of Paris, Director-at-large from Middle Tennessee—Alfred Clebsch of Clarksville, Director-at-large from East Tennessee—Mrs. R. A. Monroe of Knoxville, Chairman of Finance Committee—Al H. Mayfield of Nashville, Chairman of Planning Committee—Joseph C. Howell of Knoxville.

The business was dispatched promptly, and immediately after adjournment the exodus began to the different corners of the State.

HAWK MIGRATION PROJECT:—Considerable interest having been aroused during recent years in an effort to trace the direction and course of the southward migration of the Broad-winged Hawk, the matter lends itself nicely to our work afield. Very tangible observations have been made in the mountains of Pennsylvania, Maryland, etc., and to a lesser extent southeastwardly thru the Alleghanies, where trace of the flights is all but lost on their journey to South and Central America. More observations are needed across Tennessee as well as southwardly and our members are urged to be afield thru September to watch for and report such flights. Observers are cautioned to examine distant flocks with care to be certain they are not Nighthawks or vultures and to mention any uncertainty that may exist in identification. I have appointed Mr. Fred W. Behrend of Elizabethton as Chairman of a committee to further this project and am asking our members to cooperate with him. Mr. Behrend has already made considerable observations on hawks in northeast Tennessee and he will be glad to hear from prospective cooperators.—MRS. BEN B. COFFEY, President.

IDENTIFYING THE IDENTIFIABLE

An incident that happened on a New Jersey beach illustrates a frequent occurence in bird identification. A beginning bird student met an old and respected ornithologist, Dr. Witmer Stone, on the beach and reported to him that he had seen dozens of Noddy Terns, tropical birds, that morning. His statement met disbelief, outright and probably very irritating disbelief. He was ready to swear that they were Noddy Terns: "They must be, they are dark terns with light foreheads". Then it was pointed out to him that immature Black Terns also have dark bodies and light foreheads. He immediately realized that was what he had been seeing, for there were also many adult Black Terns along the beach. All of a sudden the Noddy Terns were no more.

In the manner of Aesop's Fables, the moral of this tale is "Don't identify a bird as one of a rare species unless you have eliminated all of the female, immature, fall and winter plumages of the commoner species." This is not always easy, especially when you consider that some birds like the Orchard Oriole have as many as five different plumages.

What should a person do when he sees a bird he does not recognize?

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The simple truth about birds is interesting enough;
it is not necessary to go beyond it.

The wrong thing to do is to immediately look at the book, for that is likely to lead to transferring what is seen in the pictures to what was thought to be seen on the bird, and while this is happening the bird will probably fly away. The best thing to do is to carefully look at the bird, and then to draw a sketch of it. You do not have to be an artist. Anyone can draw a simple outline of a bird, as seen from the side or from below, and on this outline mark the positions of wing-bars, streaks, tail bands, other markings, and colors. The shape of the bill, wings, and tail should also be included. If this is done well, the observer will not concentrate on some features and overlook others, but will get a complete record of the bird's plumage and appearance. Then he can examine the book carefully and leisurely. And he will have a record of his observations that he can show to Doubting Thomases.

Despite careful observations, lighting and distance can play mean tricks on a bird student. White-breasted birds among leaves lighted by the sun may appear to have yellow underparts because of reflection from the leaves. Birds in the sky or on the water with no near object for comparison may appear to be of almost any size. Purple Martins have been called hawks and Pied-billed Grebes have been identified as geese.

When in doubt or when seeing a rare species, get someone else, if it is at all possible, to look at it. Two persons agreeing on an identification is far better than one. Remember that an identification with a question mark is not an identification. It is not necessary, in fact it is impossible, to identify every bird seen. Every expert in the field frequently lowers his binoculars and says, "Well, there is one that I cannot tell."

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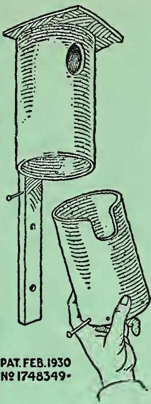

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DEVOTED TO TENNESSEE BIRDS

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SOME NOTES ON BALD EAGLES

By ALBERT F. GANIER

The recent capture, described below, of a Bald Eagle(**Haliaeetus leucocephalus**) recalls a number of notes I have made on this species and some of these are recorded in what follows.

On the new Center Hill lake, covering what was the Caney Fork valley, at a point about ten miles northeast of Smithville, Mr. Lucien H. Stanton of McMinnville, on July 20, 1951, sighted an eagle flying low above the water and heavily laden with prey. Two crows were flying above or trailing, making raucous cries all the while. Stanton's motorboat had just rapidly rounded the point of a peninsula when he came in sight of the eagle, and the bird on seeing the approaching boat banked sharply to change its course. The maneuver resulted in the prey striking the water, causing the big raptor to dive in head first. The crows circled above for a few seconds, doubtless feeling that all credit for the victory was theirs, then flew away as the boat approached.

I interviewed Stanton a week later at his office and he told me that the eagle attempted to rise from the water but was unable to do so. The prey floated to the surface and proved to be a small, red jersey pig. He did not look to see if it had been freshly killed but presumed it had because pigs and stock were grazing in the hillside pasture from the direction of which it had come. The eagle was finally lassoed and towed up to and out on the bank. Its regal feelings having by this time become fully aroused by such unaccustomed indignities, it immediately became belligerent. "It flew into me and at my companion," Stanton said. "It tore my pants to shreds and chased my companion twenty feet up the bank." It was finally secured by throwing a life preserver about it and was then transferred to a wire coop. Believing it to be a Golden Eagle, he left it there, at the Hurricane dock, for others to see. The bird would not eat so it was released the following night by a dock attendant.

In my talk with Stanton it developed that the bird had unfeathered tarsus ("legs like a chicken") which proved it to be a Bald Eagle. From the description of the plumage it seems probable that the bird was in its second or possibly third year, with head and tail mostly brown. Since these eagles do not breed until three or four years old—by which time the head and tail have turned white—this individual was probably an unmated wanderer.

While one might think that lack of experience caused this eagle to strike the water, yet a similar instance occurred on Lake Watauga, near Hampton in northeast Tennessee, which involved a mature, white-headed bird. A clipping which was sent to me by Fred W. Behrend included a photo of the bird

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and an account of its having been rescued by men in a boat who saw it struggling in the water to keep itself afloat. This was at 8 a. m. in mid-October, 1950. The report said the bird had a wingspread of seven feet and weighed eight pounds.

Eagles along the seacoast often become quite dependent upon Ospreys to catch their food since they habitually rob these birds of the fish they so expertly catch. In Tennessee, however, no Ospreys are known to remain for nesting so visiting Bald Eagles must catch their own prey, the most of which is probably rabbits. That it has been known to catch its own fish and arise with them from the water is attested by several competent observers quoted by A. C. Bent (1937) in the chapter on this species included in his life histories of birds. The several pair which nest at Reelfoot Lake, Tennessee, live chiefly during the hunting season on ducks that have been crippled by the numerous hunters there and at other seasons on "rough" or dead fish discarded by commercial fishermen and on the little musk ("stink box") turtles which are found drowned in their nets.

At Horseshoe Lake, Arkansas, 25 miles southwest of Memphis, the writer in company with Ben B. Coffey and other Memphis T. O. S. members, found three nests on the wooded island in the lake on March 9, 1930. The island was also a refuge for deer and while walking about, we found several carcasses of does and fawns partly eaten, probably by the eagles. One of the nests to which I climbed, 103 feet up in a large white oak tree, held two young nearly as large as the adults. A more detailed account may be found in an article by me at that time (1931) entitled "Facts about Eagles in Tennessee."

At least two nests of the Bald Eagle have existed during the past few years on the Tennessee River, one in Alabama and one in Tennessee. The first mentioned is located on an island in the river a few miles upstream from Decatur and was reported to me in the spring of 1948 by Paul Bryan who is connected with the Wildlife Division of the T. V. A. with headquarters at Decatur. Mr. Bryan found the bird incubating on January 16 and on May 6 noted that the young in the nest appeared nearly grown. In 1949 the eagles were again reported using the nest by personnel of the Wheeler Wildlife Refuge, and this pair is probably still resident there. Further downstream, in Hardin county, Tennessee, there is an island which from early days has borne the name of Eagle's Nest Island and reputed to have formerly been a regular nesting site.

Of greater interest is a nest in Stewart county, Tennessee, which has been in use during the past few years and is believed to be in current use. This was described (1949) by John DeLime, of the U. S. Fish and Wildlife Service for that area, as follows: "The nest of the Bald Eagle in Tennessee about one-half mile over the (Kentucky) State line on the east bank of the lake— Apparently the eagles have been here for at least three years and I have observed them for two. The nest used last year (1948) was in a large red oak on a sharp little hill about 150 yards from the water. Another nest, not being used, is located about one-quarter mile north of this point. Last year only one bird was raised and again this year there is only one bird in the nest." The writer plans to check on this nest during the coming spring.

It is quite probable that another pair are nesting near the confluence of Duck River with the Tennessee, at which point Kentucky Lake has submerged thousands of acres of river bottom, and the area has been set aside as a wildlife refuge. The most tangible evidence is the recording there of a Bald Eagle in adult plumage during May 1949, by Miss Kathleen Key who was with a nature study group from Murray State College. An adult bird at this date and in such environment would be pretty certain to have a nest not far away.

The tailwaters of the great Tennessee river dams are regular hangouts for these eagles in winter where they join the gulls in gleaning dead or injured fish. In the Nashville area, one or two of the birds are reported nearly every year. Those in the fall may be either adults or young while those in the spring are generally immatures, i. e., wanderers. The numerous power-dam lakes that have been formed on the Tennessee and Cumberland rivers and their tributaries may cause additional pairs to establish themselves, especially if Ospreys move in too, to help out with their food problem.

For those who would care to learn more of the life history of the Bald Eagle, it is suggested that they read Francis H. Herrick's (1924) careful study of this species in northern Ohio and referred to in the literature cited below.

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HELP WANTED

The following two requests for cooperation have been received and are hereby passed on to T. O. S. members. A research fellowship has been established at Ohio State University for the study of bird migration as related to weather phenonema. Cooperation is needed in obtaining data on the most common migrants, day-by-day counts made thruout the migration season in a certain locality at about the same time each day. Anyone wishing to collaborate should write for blanks and further information to Mildred Miskimen, Research Fellow, Department of Zoology and Entomology, Ohio State University, Columbus 10, Ohio. Special help is needed also this fall by the Fish and Wildlife Service to obtain information on the fall migration of Mourning Doves. Counts or notes may be sent to, or more information obtained from, Chandler S. Robbins, Biologist, U. S. Fish and Wildlife Service, Patuxent Research Refuge, Laurel, Maryland.

WARBLERS ALONG SHORT CREEK, JEFFERSON COUNTY, ALABAMA

By THOMAS A. IMHOF

West and north of Birmingham is a rugged area of 3200 square miles of shaly soil where Alabama mines most of its coal. This region is similar in many respects to the coal-mining areas near the Cumberland Plateau in Tennessee and Kentucky. This land in Alabama is a plateau of 700 to 750 feet in elevation that has been eroded very deeply into many narrow ravines. As a result farming is largely confined to the hill-tops. It was estimated by Harper (1943) that in 1940 76% of the area was forested.

The most conspicuous tree is Virginia pine, and there are no lack of cliffs for it. Harper (1943) estimated that 34% of the forest in this region is evergreen. In the bottoms the most abundant trees are about in this order: Tulip Poplar, Beech, Hickory (various species), Elm, Box Elder, Loblolly Pine, Red Maple, Ash, White Oak, Sweet Gum, and Black Gum, with occasional Cucumber Trees. On the slopes where there is deciduous forest are found Red and Black Oaks, Hickory, Chestnut Oak, Dogwood, Sweet Gum, small amounts of Loblolly and Shortleaf Pine, and rarely Hemlock. On the drier and more barren slopes and the crests there are Virginia Pine, Shortleaf Pine, Blackjack Oak, Post Oak, and Longleaf Pine.

The valley of Short Creek, seven miles west of Birmingham, conforms in all respects including breeding birds with many other shale ravines in the region explored by the writer, except for the railroad which makes it easy to explore. In the late spring of 1950 the writer covered eight miles of this valley and two miles of an adjoining one and counted all warblers seen and heard along this ten-mile stretch of railroad. Five trips were taken, each covering about two miles of the route; the resulting counts are presented in the Table.

The area proved to have a large and varied warbler population. Four of the species are not generally known to nest in Alabama; these are Worm-eating, Blue-winged, and Black-throated Green Warblers, and Louisiana Waterthrush. Of seventeen species of warblers known to breed in Jefferson County, all but the Prothonotary, Parula, and Yellow Warblers are represented. More than 90% of the birds recorded were singing males on territory. Note that except for the Blue-winged Warbler, all species were fairly evenly distributed along the hollow. The Pine Warbler figure is misleadingly low, because courtship and song begins in January and young are out of the nest the first week in April; in the area covered June 3 the writer found 20 Pine Warblers on March 20 and 25 on April 18. With the exception of this species, I believe that the totals in the Table are a very good indication of these warblers' relative abundance in the valley and region as a whole.

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307 38th STREET, FAIRFIELD, ALABAMA

TABLE OF WARBLERS ALONG SHORT CREEK

	May 10	May 22	May 29	June 3	June 21	Total	HABITAT PREFERENCES
Black and White	5	5	6	4	..	20	Deciduous slopes
Worm-eating	1	..	2	2	3	8	Steep shrubby slopes
Blue-winged	..	..	2	..	..	2	One pair in a brushy field with deciduous saplings. The male sang from a pine.
Black-throated Green	5	10	..	8	1	24	Virginia Pine on the bluffs, often entering hardwoods.
Cerulean	8	4	17	4	6	39	Tall hardwoods close to water.
Yellow-throated	12	8	7	5	1	33	Loblolly, Virginia, and Shortleaf Pine, in marked contrast to the Sycamore-inhabiting birds of western Tennessee.
Pine	14	22	4	2	3	45	Pines, rarely in hardwoods.
Prairie	8	14	14	5	4	45	Dry slopes with saplings.
Louisiana Water Thrush	2	2	6	1	2	13	Always observed within five yards of the stream.
Kentucky	9	13	5	5	5	37	Slightly thicker and drier spots than the Hooded, which is often found nearby.
Yellow-throat	2	4	4	1	..	11	Sunny thickets near stream.
Yellow-breasted Chat	10	17	25	8	18	78	Any kind of thicket except the driest.
Hooded	10	16	3	6	8	43	Deciduous shrubbby woodland near water.
American Redstart	10	10	16	9	7	52	Prefers beeches in bottoms

THE ROUND TABLE

SWALLOW-TAILED KITE AT LAKEVIEW, MISS.—Recently Alan Zeigler, enroute from Scott Field, Ill., to Bainbridge, Ga., where he will be an Air Cadet, stopped off at home and birded some at Camp Currier, Lonoke and Lakeview. On Aug. 17, 1951, while driving on the Lakeview levee alongside Horn Lake, he was able to observe a Swallow-tailed Kite flying low about 100 yards distant. The location was east of Mud Lake and in Mississippi about a mile south of Tennessee. Alan being an experienced and conscientious observer, this is offered as the first record of this kite for the Memphis area. The writer had covered this levee on the 18th and, in company with Alan and others, revisited it on the 19th without any success at finding this beautiful species.—BEN B. COFFEY, JR.

EFFECT OF THE 1951 ICE STORM ON BLUEBIRD NESTING.—The 1951 Bluebird population in Warner Parks was drastically reduced after the unprecedented ice storm which gripped Nashville from January 29 through February 12, 1951. Sleet and snow fell for four days, followed by a drop in temperature to 13 degrees, according to the U. S. Weather Bureau (still colder in some locations). Ice did not melt from the trees until February 4 and covered the ground completely for an additional eight days. With no natural food available, doubtless great numbers of birds perished in the wild and were eaten by predators. From the afternoon of February 12, when roads were pariallly cleared of fallen trees, I started making trips to Warner Park and found the remains of two Bluebirds in nest boxes, only feathers of one were left and the headless body of another.

During February and early March, the number of Bluebirds counted on my trips through the park did not exceed seven. On March 23, I found several boxes with varying amounts of nest material, but no eggs. Usually by that date egg laying and incubation are well started in Warner Parks. On my next inspection April 3, there were two complete sets of six eggs each. On April 12 a peak for the 1951 season was reached with 15 occupied boxes.

It is impossible to know how many adults survived the storm, but of nine incubating females trapped on the nest, only two had been banded in some previous year.

In the 1951 season with 46 available nest boxes, 17 were not used at all and 29 were occupied at least once by Bluebirds at various times. For the three nesting periods, 21, 26 and 10 nesting attempts were made, totaling 57. Eight sets of six eggs were laid, with an average number per clutch of 4.7 (about the same average per nest as in the three previous seasons.) But the average number of eggs per available nest box for the entire season of 1951 was only 5.7 eggs. This is the lowest of any season since the project was started in 1936. After the severe winters of 1940 and 1947, the average number of eggs per available nest box for the season was 9.7 and 7 eggs respectively. The average for "normal" years ranged from 9.6 to 12.3 eggs per available box. (MIGRANT 19 (1) :9-11 1948).

For comparison, the following table shows the drop in egg production this year:

Year	Number nesting attempts.	Number eggs laid
1948	93	441
1949	100	456
1950	109	506
1951	57	264

From the 264 eggs laid this year, 174 young were hatched and 122 survived to leave the nest (53.8% of the number laid). Twenty six clutches were entirely unsucessful due mainly to predation.

Usually each season two or more nest boxes are occupied by Crested Flycatchers, Carolina Chickadees, Tufted Titmice, Bewick's Wrens or Carolina Wrens. This year none of these nested in the boxes. Carolina Wrens and Chickadees have been very scarce in Warner Parks since the ice storm.—AMELIA R. LASKEY, 1521 Greybar Lane, Nashville, Tennessee.

STARLINGS DRIVE RED-HEADED WOODPECKERS FROM NESTS.—Each spring since 1947 my nature study classes and I have observed a pair of Red-headed Woodpeckers in the same vicinity of Cumberland University campus. Usually several pairs of Starlings perch nearby as the Woodpeckers make a hole and nest in a dead snag. Then the Starlings take possession of the nest. Two to four nests were taken each year before the Red-heads retained one.

On May 9, 1948, we observed the maneuvers by which this was done. Several Starlings noisily closed in on the hole until a Red-head gave chase to one. While the chase was on, one of the other Starlings flew at the Red-head within the hole repeatedly until it also gave chase. Then a nearby Starling hopped in the hole. The returning Red-heads scolded and chased the Starlings, but made no attempt to retake the nest. Within an hour they were drilling at another site.

This year the male was seen first in the early morning of April 26, and the female later that afternoon. The first nest was completed in two days. For a week no Starlings were seen perching nearby. On May 7 a pair of Starlings were possessors of it, and the Red-heads were excavating a second nest. Between 1 and 11 a. m. on May 10 a pair of Starlings had moved into this nest. Tho the Red-heads are still seen in the area, their latest nesting sites have not been found during the following two days.—JAMES W. SHAW, Cumberland University, Lebanon, Tennessee.

CERULEAN WARBLERS AND REDSTARTS REMOVE THEIR NESTS—On May 12 and 13, 1951, members of the T. O. S., while attending the annual meeting at Standing Stone State Park, found a number of nests including two of the rarely found Cerulean warbler and one of the American Redstart. The latter was placed 18 feet up in an ironwood tree at the edge of a hillside woods and contained one fresh egg. The writer climbed to investigate the contents but did not touch the nest. The female flew about protesting and a group of members viewed the nest from below. Five day later, I returned to the Park for some further observations and on stopping at the Redstart's nest-tree, found that every vestige of the nest had been removed from the crotch. It is probable that a Blue Jay took the egg and that the parent birds then recovered the material to construct a new nest nearby.

Both Cerulean Warbler nests were under construction on May 12. The first was about 65 feet up, saddled well out on a horizontal limb that sprung from a large basswood tree that grew near the base of a steep wooded hillside. On May 17, the nest was found to have been completed but no attempt was made to examine it. The second nest was located on top of the ridge in a whiteoak tree that grew beside the Group Cabin near headquarters. It was near the top of the tree, about 60 feet up, and 10 feet out on a horizontal limb. Construction was actively under way on May 12 and the nest was well advanced. Several groups of members gathered to watch but no one attempted to climb the tree. On my visit of May 17, this nest too was found to have been completely removed and no material whatever was left on the limb. It is my belief that the Warblers had removed it, bit by bit, to a new location. Here again is a possibility that a Blue Jay had caused dissatisfaction by visiting the nest. At Nashville, I have record of a Sycamore Warbler removing its nest after I had climbed and found it unfinished. Blue Jays frequently rob this species of their eggs. Dr. H. S. Vaughn tells me that he knew of a Red-eyed Vireo that removed its partly finished nest to a new location.—ALBERT F. GANIER, 2112 Woodlawn Dr., Nashville, Tennessee.

NEST OF THE BLUE GROSBEAK **(GUIRACA CAERULEA)** IN KNOX COUNTY, TENNESSEE.—As reported earlier (1951 **Migrant,** p. 33) this species is being observed with increasing frequency in the Knoxville region. During a field trip taken with a class in Ornithology on August 18, 1951, a male Blue Gresbeak was observed as it sang from a telephone wire beside a hard-surfaced road. Soon a female carrying food in its bill joined the male and began to scold. In the hope that the female would fly to the nest we retreated until we were about 150 feet from the pair of grosbeaks. In a few minutes Mr. Paul Dunaway observed the female fly to a particular spot in a large mass of Kudza vine **(Pueraria lobata)** which covered a fence and nearby areas. A brief search resulted in locating the nest. It was three feet above the ground on a horizontal vine beside a Great Ragweed **(Ambrosia trifida).** In the nest were three young estimated to be about five to seven days old. During the 15 minutes we remained at the nest the female fed the young frequently. The nest was 1.75 miles southwest of Bearden.—J. C. HOWELL, Dept. of Zoology, Univ. of Tenn., Knoxville, Tenn.

TOWHEE IS SHRIKE'S PREY.—At about 10:30 a. m. of December 27, 1950, the many birds feeding around our yard began loud scolding. I hurried out in time to see something flutter behind the hedge fifty feet away. I could see with my glasses that it was a Loggerhead Shrike **(Lanius ludovicianus)** which had caught a bird. I approached, and the Shrike moved its prey across our narrow street, but it did not fly over two feet above the road. I inspected the bird, which was left on the ground, and found it to be a Towhee. Twenty minutes later the Towhee's head was gone; I then took the tail feathers.

At 12:00 the Towhee was gone from the ground. I found the lower body and feet hanging a few inches from the water on the bank of a stream. This was about ten feet from the spot beside the road, and it was lower. I took the feet and stuck the remainder of the body more firmly on the stick, as it was almost ready to drop. The Shrike did not come near while I stayed there. The Shrike seemed to have eaten over half of the entire Towhee in one day.

No Shrike had been seen near our home by me at any time before, and one has not been seen since.—FAIRMAN CUMMING, 824 Sutton Hill Road, Nashville 4, Tennessee.

THE SEASON

MEMPHIS AREA.—Early June continued dry but the next four weeks had above normal rain, followed by a record hot, dry spell of six weeks up to Labor Day. For the first time in twelve years Pied-billed Grebes nested in our local area, at Lakeview, Miss. Four nests, two with eggs, were found five miles southwest of the previous site (1932-39) on the Spring Field Day, May 6. Adults with young were seen at the Lonoke, Ark., Fish Hatchery on July 29 (Coffeys) and Aug. 14 (Ziegler). A new heronry, second season, reported by Merrill Schwartz on Redmond Bar, a Mississippi River towhead six miles north of Memphis, too late for a visit by writer, is in willows and apparently of Little Blue Herons. Two Double-crested Cormorants were seen Aug. 14 at Lonoke, Ark., (Alan Ziegler), and Wood Duck were common there July 29 (Coffeys, R. D. Smith) when a female Shoveller, possibly injured, was seen at the hatchery. Purple and Florida Gallinules were at the latter place June 18 and July 29 (Coffeys) and Aug. 14 (Ziegler). A pair of purple Gallinules flushed at a recently used nest (eggshell fragments) and a new nest without eggs at the hatchery, July 29, while young Floridas were seen July 29 and Aug. 14 in the hatchery and the rice fields. Least Bitterns were also present there, while at Lakeview, Miss., a nest of this species with two eggs was found on May 6 (T.O.S.), later abandoned. Two Purple Gallinules were found at the Tupelo, Miss., Fish Hatchery, July 7.

High water, within two feet of flood stage, lasted into late July and Mud Lake was too high for herons until mid-September. On July 22 fifteen Wood Ibis were seen near there. Sandbars in the river started showing about Aug. 3, but Merrill Schwartz reported some high portions remained dry and Least Terns were using such areas for their nests in July. This species arrived unusually late and escaped T.O.S. eyes until June 1. First shorebirds noted were at Hazen and Lonoke, July 22, when Lesser Yellowlegs, 1, Least, 30, Semi-palmated, 3, Western, 2, Solitary, 1, and Pectoral Sandpipers, 10, were seen. A Spotted Sandpiper was seen July 28 at Lakeview, Miss., and 7 Pectoral Aug. 5 at the Navy Base, Millington, Tenn. (both near Memphis). An Upland Plover appeared July 22 at the Penal Farm with a few others later, while a Golden Plover, our first fall record, was seen Sept. 9 at the Navy Hospital. The latter species has been reported in eastern Arkansas in recent falls, **Audubon Field Notes**).

On Aug. 18 J. E. Jolly saw 15 Mississippi Kites over Riverside Park where a pair or more nest each year; six was the highest number seen previously. A few hours later, at about dusk, Oliver Irwin saw 16 moving southeast, at Levi School, three miles south-southeast. On Aug. 26, Capt. Bill Simpson, late of Nashville, Memphis, and Honolulu, now of the 11th Airborne Division, noticed a Kite feeding young on a nest about 90 feet high in a southern red oak. We watched the two adults at this site, in a woods about a mile southeast of Overton Park where the species was not reported this season. On Aug. 27 and 29 the birds were heard at the site but not subsequently. This is a late date for their nesting. At Mud Lake Demett

Smith saw an Osprey, Sept. 9, and a Sharp-shinned Hawk, Bald Eagle, and Pigeon Hawk (rare) on Sept. 15.

Bank Swallows appeared in numbers, 200 on July 28 at Mud Lake and 500 on the pavement at Field 21, Aug. 5. Rough-wingeds appeared in small flocks in mid-July only. Barn Swallows again had a good season and nests were found on Apr. 29 at old bridges west of Coldwater, Miss. The first reported nest (for the common or northern race) for the state was at Walls, Miss., last May, 1950, by Harold Clark and Mount. The Tennessee River and Snake Creek colonies of Cliff Swallows changed little. Since 1935 two or three pairs of Brown Thrashers have always nested on Coffey Grounds but none this year and very few wanderers appeared at the traps. Robins are again below normal and Bluebirds in the county did not recover from the severe winter. Our first summer record for Mississippi of the Scarlet Tanager was a singing (and apparently nesting) male, south of Greenwood Springs, on July 8. Because of a late May record at Eastport, near Iuka, we have searched there unsuccessfully the last three Junes. On July 15 one was seen at the fire tower northeast of Parsons, Tenn. Orchard Orioles and the less common Baltimore appeared much less common than normal. Lark Sparrows at Hardy, Ark., returned to a 1929 site and were seen June 30 between Pocahontas and Ravenden, as was the Blue Grosbeak. Two pairs of the latter were at Grand Junction, Tenn., July 14 (A. Smith and Barefield); here a pair wtih young flying were seen July 6, 1947 (Coffeys), and the male collected (Tucker); none were found there 1949-50. On Aug. 12 Demett Smith observed an Eastern Meadowlark feeding young in a nest at the Penal Farm.

On Aug. 24 a Yellow-bellied Flycatcher (rare) appeared at home where Mrs. Coffey could study it at ten feet and listen to it call for 30 minutes. —BEN B. COFFEY, JR.

NASHVILLE—In spite of a late spring drought, a hot humid mid-summer, and an August drought of impressive force Middle Tennessee's metroilogically dry season is brightened by a number of interesting nesting records and by notes on summer bird movements.

June 26, Mrs. Amelia Laskey banded 6 young Shrikes in a nest she watched through incubation to successful fledging. Aug. 17 two of the banded young were back at the nest site in Warner Park. A. F. Ganier reports the Black-crowned Night Herons continued their nesting colony north of Nashville on White's Creek. Harvey Scurlock found a Cooper's Hawk nest on Woodlawn Drive at the city limit in a small thicket well surrounded for some years by dwellings. H. C. Monk reports that although the Mourning Dove population of Centenial Park area is only 50% of recent peak populations, one pair reared five broods from two nest sites the last of which fledged Sept. 2. Four Dove nests were still in progress Sept. 6. A late brood of three Robins left their nest Aug. 22 and a Cardinal nest still contained young Sept. 6. (H.C.M.) Observations on a nesting pair of Redstarts during several weeks led to the establishment of a breeding record for Basin Spring when the female was observed to feed a short-tailed fledgling very near the suspected location of the nest June 6

(ARL, KAG). Effects of the February Blizzard are still reflected in the total absence of evidence of resident Chickadees, Mockingbirds, and White-breasted Nuthatches along the South Harpeth River to Basin Spring, a territory previously supporting numerous pairs of each species. Carolina Wrens have been reestablished during the summer.

An Orange-crowned Warbler on April 22 and 25 reported by Mr. Monk is a notable record. On July 10 a silent adult male Blue Grosbeak was observed feeding in a lespedeza field in the South Harpeth Valley by Mrs. Laskey, Julia Moore of Oak Ridge, and the writer. The bird fed leisurely and gave ample time for deliberate observation. A Little Blue Heron in white plumage was recorded on the South Harpeth April 27 by Mrs. Laskey. Mr. Ganier records a mature Yellow-crowned Night Heron, July 16, northwest of McMinnville on Sink Creek at Blue Spring. A Great Blue Heron was over Centennial Park June 24 (H.C.M.).

A late record for three Dickcissels in a nesting territory is Aug. 19 (K.A.G.). Aug. 23 seems early for a flock of 19 fall-plumaged Bobolinks. Along with them was a singing Short-billed Marsh Wren (A.R.L. and K.A.G.). Dr. Mayfield reports the season's first Magnolia Warblers: two on Stones River on Aug. 28. The Upland Plover's call in pre-dawn flight Aug. 13 and others on Sept. 1 and 4 were heard by H. C. Monk. H. O. Todd heard the same Plover in flight over Murfreesboro Sept. 1. A rare record of Purple Martins in flight Sept. 5 comes from Mr. Monk. In addition to a migrating flock of about 1000 Nighthawks proceeding up the South Harpeth Valley late afternoon Aug. 28, the writer reports a Canada Warbler and a Red-breasted Nuthatch on Aug. 31, the latter being an extraordinary date for an infrequent visitor.—KATHERINE A. GOODPASTURE.

KNOXVILLE—The summer heat came here during July, when there were some spells of unusually hot weather. August was one of the driest Augusts on record. Altho there have been some rare bird records made this summer, it does not appear that the unusual weather had much influence on birds' activities.

There were two new species added to the list of birds nesting in Knox County, both by J. C. Howell. On July 1 he found two adults and one young Worm-eating Warbler near House Mountain. The second addition was the Blue Grosbeak, which record is noted in "The Round Table" of this issue. Other unusual nesting records were of House Wrens, which apparently nested again in the Lonsdale section of Knoxville, and of Cedar Waxwings, when one adult and two young were seen on July 21. The following are unusually late nesting records: Summer Tanager, young leaving the nest on Aug. 1 ; Towhee, nest with two eggs and one young on July 29; Grasshopper Sparrow, nest with four eggs on July 31; Chipping Sparrow, young out of nest Sept. 2.

Summer herons have been few except for a group of fifty American Egrets seen on Aug. 31 by Bob Scott. The only other herons seen, except for Great Blues, have been a Little Blue Heron on July 22 and a Black-crowned Night Heron on June 3.

The following records represent either wandering birds or early fall migrants. Two Cerulean Warblers were seen on July 28; it is possible that these nested in this area; one was seen on Aug. 18. A Lark Sparrow, a very rare bird in East Tennessee, was found by J. C. Howell on Aug. 11 about seventeen miles west of Knoxville. A Red-breasted Nuthatch appeared at my home on Sept. 4, and has remained in the pines around there since that date. The first dates for several fall migrants are: Canada Warbler, Aug. 27 and 30; Tennessee Warbler, Sept. 1; Bobolink, 21 on Sept. 2; Pectoral Sandpiper, one on Sept. 2; Olive-backed Thrush, Sept. 18. —JAMES T. TANNER.

GREENEVILLE—Greene County had an unusual rainfall distribution the past summer. The northeastern section received ample moisture while the southwestern area was quite dry. This condition may have affected few of the birds but it appears to have been responsible for a very noticeable increase of Bobwhites in the dry section. Mr. Richard Nevius has observed unusual numbers in the Lick Creek valley.

Without explanation is a scarcity of Mourning Doves as compared with past years. Flocks of young birds are noticeably few.

Red-headed Woodpeckers "conspiciously absent" last winter on the Tusculum College campus, returned in usual numbers last spring. However, no young were observed during the summer and it is problematical whether they were successful in nesting. During most of the summer large droves of starlings used the oak grove where the Red-heads usually nest.

On September 2 five Pileated Woodpeckers were observed by Mrs. Willis Clemens in flight near her home at Tusculum. Three of the group were smaller indicating successful nesting of these birds, probably in a near by woodland. Pileated woodpeckers seem definitely on the increase in this county.

The following is quoted from a report by Mrs. Richard Nevius: "From his appearance on April 30, a Dickcissel sang daily and often until June 4, when the red clover field, beneath his electric wire perch, was mowed. Thereafter through June 19, the last date song was heard from his area, his song was sporadic. Two pairs of Dickcissels in the Roaring Fork bottoms may have nested successfully, as song from the two males persisted almost steadily through August 4. The location of the latter two pairs was more favorable to successful nesting, being a permanent pasture area with bushy edges and a central wet, densely grown area."

"Late summer wandering was noted in a female Prothonotary Warbler which paused July 10-13 in lawn mimosa trees. On June 29 a Blue-gray Gnatcatcher appeared in a roadside and lawn area where the species had not occurred throughout the nesting season."

On the afternoon of September 15, Mrs. Willis Clemens, Mr. and Mrs. J. B. White, and C. M. Shanks made a trip to Camp Creek Bald to observe hawk flights. Weather conditions were ideal but no evidence of large flights occurred. However, fourteen hawks were observed and identified as follows: Cooper's, 1; Red-shouldered, 1; Broad-wing, 1; Marsh, 4; Sparrow, 1; and unidentified, 6.

Today, September 16, 9 unidentified hawks were observed by Dr. Bing Barnes flying over Tusculum at a very great height. The flight was very swift and in a southwesterly direction indicating migration.

Six young Ruffed Grouse were observed along the road leading to Camp Creek Bald by the party mentioned above.—C. M. SHANKS.

KINGSPORT—The following comments on summer birds in Sullivan County are based upon the observations of only a few people. The area has not been covered well enough for accurate estimation of trends. Nevertheless we have a few local items of general interest.

Bewick's Wrens seem to be declining in numbers, at least in and around the city of Kingsport. This is in line with the hypothesis that Bewick's Wrens tend to disappear in areas invaded by the House Wren. For example, Mrs. Switzer reports that three pairs of House Wrens nested this summer in an area of about three acres in her neighborhood. Last year one pair of Bewick's Wrens and one pair of House Wrens nested in this same area. The Bewick's Wren appeared in April, but did not remain after the arrival of the House Wrens in May. Carolina Wrens also nest in this area, and Mrs. Switzer said that she has heard all three singing at the same time.

The House Wren is primarily a city bird. More specifically, he is a bird of residential districts where there are gardens and shrubbery, and of course, wren houses. In Sullivan County there are very few House Wrens outside of Bristol and Kingsport, and probably a hundred in each of these cities. I have lived in Blountville nearly six years and have seen only one and heard only one other House Wren there. Besides these two transients I have seen or heard no others outside of the cities of Kingsport and Bristol. On the other hand, Bewick's Wrens are distributed generally over the country.

Our rarest summer resident, the Vesper Sparrow, did not return to the area where he has been observed thruout the summer during three of the past five years.

Bachman's Sparrow seemed less numerous this summer, continuing a trend toward fewer numbers. The high hill behind the house in which I live with my family has been the summer residence of this sparrow during four of the past five seasons. This year the male arrived late, but sang for long periods during June and the first half of July, as much at noon as in the morning or evening. I made several unsuccessful attempts to locate the nest. Perhaps there was no female.

This was a poor year for Brown Thrashers, but a very good one for Bob-white, Yellow-billed Cuckoo, Ruby-throated Hummingbird, Pileated Woodpecker, Chickadees, Tufted Titmouse, and summer warblers in general. A few Ruffed Grouse were seen on Bay's Mountain in June.

Mrs. Switzer reported a Canada Warbler on Aug. 26. Her fall record for Magnolia, Bay-breasted, and Blackburnian Warblers was Sept. 12. This is the same date for first fall appearance of these three warblers last fall and the fall before.—THOMAS W. FINUCANE.

BOOK REVIEWS

A GUIDE TO BIRD FINDING, East of the Mississippi, by Olin Sewall Pettingill, Jr., Oxford University Press, N. Y. $5.00.

This book, "A Guide to Bird Finding", tells you where to go to find birds in the States lying entirely east of the Mississippi River. Its author had the assistance of over 300 collaborators, local experts who furnished the necessary detailed descriptions of what birds are found in each locality and the route to the best places. The reviewer "tested it out" by reading the descriptions pertaining to several spots in the eastern States with which he was familiar, and it tested "good to excellent". He also found that if he had had the book on a trip made this past summer, he would have found better birding spots than he did.

The material is arranged by States, and for each State there is a brief description of its geography, vegetation, and other points pertinent to bird study, and a list of the typical birds found in the most important habitats. Following this come the descriptions of the localities, in alphabetical order, fifteen to twenty or so for each State. The real meat of the book lies in the descriptions and information for each locality. A typical description begins with the vegetation or habitats, a list of the typical or more interesting birds that can be found, and then most useful and detailed directions on how to reach the best birding spots. These directions are given in terms of route numbers, names of roads and streets, mileages from landmarks, directions for walking, where tc rent boats, etc.; no one should have trouble finding their way.

There is a large index, including not only the localities but also the species of birds mentioned. You can sit down with this book and figure out the best places to go to find the birds you want to see. Bird finding made easy!

The book is decorated handsomely by many excellent pen and ink drawings of birds done by George Miksch Sutton. These, and a good job of printing, made it an attractive book.

T. O. S. members will be especially interested in the chapter on Tennessee. The list of contributors to this contains many familiar names.

Potential readers and users of this book should be cautioned about one thing: anyone reading the various descriptions will get an almost irresistable desire to start off immediately on a long birding trip.—JAMES T. TANNER

BIRDS OF ARKANSAS, by W. J. Baerg, Dept. of Entomology, University of Arkansas, Bulletin 258 (rev.), Agricultural Experiment Station, Fayetteville. Obtainable for $1.50 from the University Book Store, Fayetteville, Ark. 188 pp., paper, 3 species in color on covers, 47 photographs.

This is a revision of the bulletin issued January, 1931, long out of print, and Dr. Baerg and the station are to be heartily commended for making this edition available. Previously there were two other works, by Arthur H. Howell, 1911, and H. E. Wheeler, 1924, making, in effect, four books or editions on the birds of the State. Some of Arkansas's neighbors could well take note. The present bulletin presents information that will aid teachers and others interested in Arkansas out-of-doors. A brief description, notes on range, and miscellaneous gleanings on habits are given for each species, following a general introduction. It is intended to supplement a modern field guide and other standard works. 354 species and subspecies are listed.

Under range, specific references to some localities included in the 1931 edition and based on Howell's publication, have been dropped and more recent records added. A student of distribution will thus need the previous works and more especially will he need "An Annotated Bibliography of Arkansas Ornithology" by the late Wm. H. Deaderick (**The American Midland Naturalist**, Vol. 24, No. 2, pp. 490-496, Sept., 1940) to assist in evaluation of some records. The Garland County records of Dr. Deaderick and those of several other capable, amateur ornighologists add greatly to the present book. Here at Memphis we are interested in the Mississippi River area and are glad to note many recent records for eastern Arkansas, chiefly from U. S. Fish and Wildlife personnel. While Dr. Baerg refers to and takes into consideration publications on the bird life of adjacent states on three sides of Arkansas, the eastern border is completely overlooked and with it Ganier's Tennessee list, Westmore's Tennessee notes, Ganier's and Whittemore's Reelfoot lists, Vaiden's Rosedale, Mississippi, lists and the various notes on the immediate Memphis area. While Memphis students, possibly because of poor roads and the recent bridge traffic jams, have worked Tennessee and Mississippi areas much more than across the river, still such localities as Horseshoe Lake (Crittenden County) and the summer camp region of Hardy and Mammoth Spring have been visited for many years. **The Migrant** contains several Arkansas records of special interest, including the first state records for the Purple Gallinule and Franklin's Gull. In addition, many unpublished records are available; these would chiefly affect the status of certain water birds. Ganier is quoted directly and indirectly on the Bald Eagle but no mention is made of the Horseshoe Lake nesting colony he describes and which is probably the oldest, away from the coasts, in continuous existence. The reviewer is mistakenly credited with two records, one jointly. The latter should have been credited to R. Demett Smith, Jr., who recorded the first Fulvous Tree Ducks for the State on Sept. 16, 1950, a flock of 51 which were seen thru the following October 4. The other record was for the Avocet, a species seen by the reviewer only in California.

Anything is possible but here at Memphis we have about given up trying to emulate New England bird students who turn up ".impossible" rarities. Arkansas, because of its location, should have its share, particularly from the western plains. Dr. Baerg's list includes some species of special interest and we present those below which, from our viewpoint, might be grouped in two categories: unusual and very unusual. Some of the latter might be said to be doubtful but, details lacking, we hesitate to stick out our reviewing neck. By referring to Dr. Deaderick's bibliography we learn some are based on specimens and we have indicated

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The simple truth about birds is interesting enough;
it is not necessary to go beyond it.

these by an asterisk. Some others are probably also based on specimens.

Unusual: Holboell's Grebe, Trumpeter Swan, Greater Snow Goose*, Greater Scaup Duck, Swainson's Hawk (eastern Arkansas), Prairie Falcon*, Ruddy Turnstone, Sanderling, Say's Phoebe, Bohemian Waxwing, Black-throated Blue Warbler, Red Crossbill, White-winged Crossbill (fed from the hand), Oregon Junco, and Smith's Longspur. Also unusual: summer records of Herring Gull, Forster's Tern and Savannah Sparrow; no summer records of the Double-crested Cormorant; the Mississippi Kite termed rare; no evidence of the nesting of the Least Tern (regularly nests along the Mississippi River along the eastern boundary); Orange-crowned Warbler and Grinnell's Water-thrush as only rare transients; and the Grasshopper Sparrow in winter in northwestern Arkansas.

Very unusual: American Brant, Mountain Plover, American Knot, Royal Tern, White-throated Swift*, Violet-green Swallow ("abundant over prairie" Nov., 1949), Clark's Nutcracker*, White-rumped Shrike, the status currently given the Bachman's Warbler, Painted Redstart, Bob-tailed Grackle, also the nesting of the Alder and Least Flycatchers.

It might be mentioned that an old (but probable) record of a Bank Swallow colony at Helena is now termed unverified while the other two records presented could, under detached consideration, be thought to be of Rough-winged Swallows. The treatment of subspecies follows general practice for a list of this nature but some deviations were noted. Among them were the absence of the race, the Loggerhead Shrike, and the inclusion of Ward's Heron only because Deaderick had referred his Great Blue Herons to that race; all other records of the latter were referred to the northern race which, apparently, doesn't nest in West Tennessee and, correspondingly, in most of Arkansas.—BEN B. COFFEY, JR.

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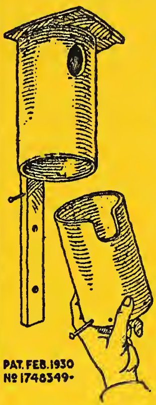

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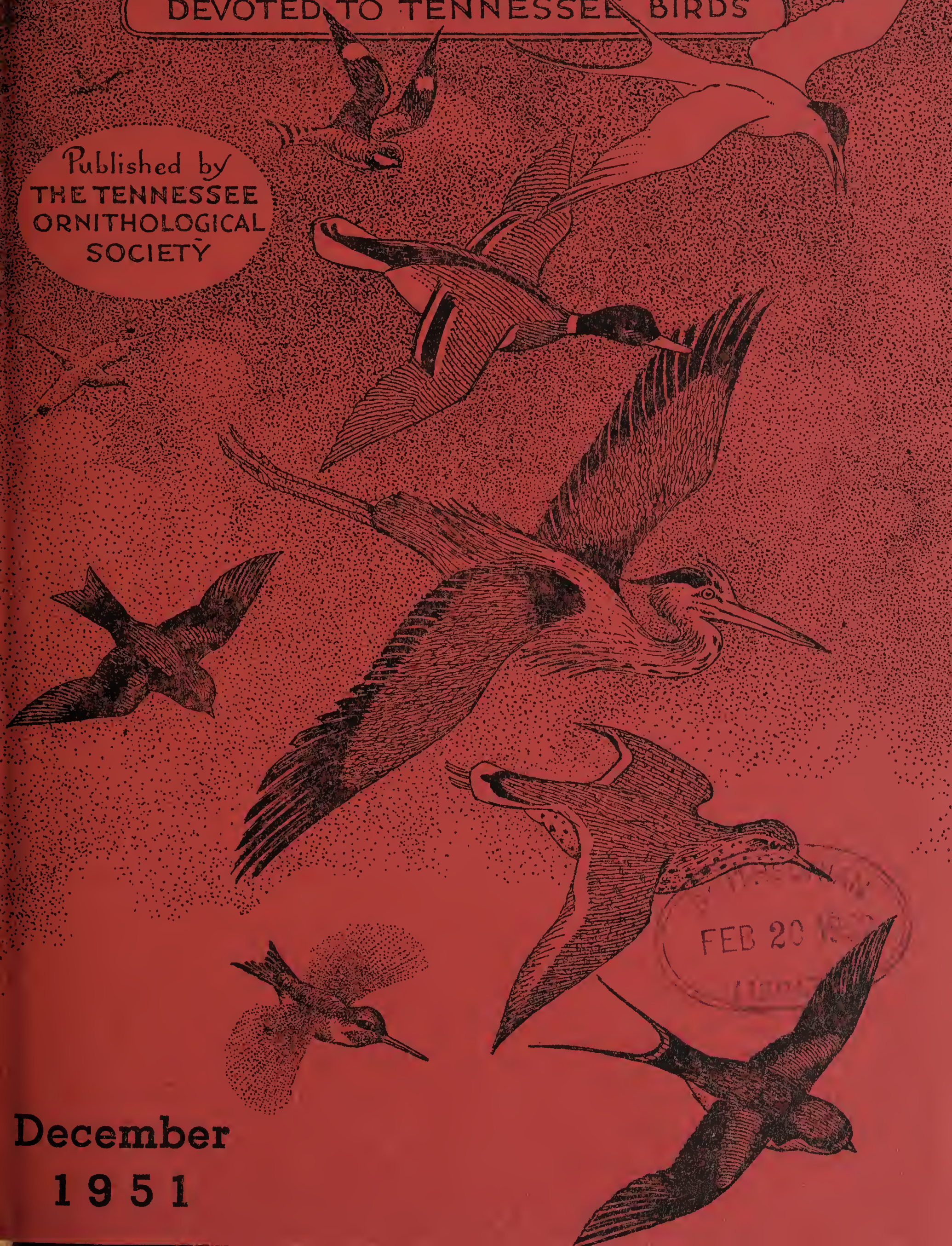

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FALL MIGRATIONS OF HAWKS IN 1951

By FRED W. BEHREND

Hawk migration observation in the fall of 1951, a project adopted by the society at its 1951 annual meeting, was conducted by chapter members from one end of the State to the other and in parts of southwestern Virginia and western North Carolina bordering on mountainous East Tennessee. Over 30 members participated in the project. The total of reported observation trips during the period of August 19 to December 2 amounted to approximately 60. A vast majority of them were made to vantage points on the mountains.

Over-all results, which broadly confirmed knowledge gained in last year's East Tennessee hawk count and added to it in several respects, were in line with expectations. A total of 4414 predators were listed, comprised of the following species: Sharp-shinned Hawk, 98; Cooper's Hawk, 56; Red-tailed Hawk, 173; Red-shouldered Hawk, 19; Broad-winged Hawk, 3911; Bald Eagle, 1; unidentified Eagles, 3; Marsh Hawk, 15; Osprey, 13; Duck Hawk, 11; Pigeon Hawk, 3; Sparrow Hawk, 26; unidentified hawks, predominantly buteos and accipiters, 82. Three hawks that possibly were Goshawks were seen, but not positively identified.

Primary interest centered, as in 1950, on the observation of flights of Broad-winged Hawks. On the basis of the 1950 experience it was deemed advisable to exert maximum effort on watching for Broad-wings on the weekends of September 22-23 and 29-30, and the members of the Society were urged to concentrate on these weekends. Presumably as a consequence of weather conditions in far northern and northeastern regions, the Broad-wings were, however, on the move earlier than usual. Information received from observers in the Northeast of the United States, and dispersed immediately among T. O. S. observers, revealed the occurrence of flights of from 200 to 300 Broadwings in Massachusetts and Pennsylvania on the exceptionally early date of September 9. Thus alerted, members of T. O. S. were afield the week beginning September 15 and successful in spotting substantial flights of Broad-wings which otherwise might have passed unnoticed over the territory subject to observation. It was in the early stages of observation that it became apparent that on warm, almost windless days the Broad-wings ride the thermals at tremendous height, making it difficult to detect them without the aid of binoculars in a blue sky. Finding them dotted against the backdrop of a light cumulus cloud facilitates observation considerably. Contrary to previous belief, the Broad-wings were not at all retarded in their flight by encountering a southwest head wind of mod-

1952

erate velocity. On several occasions they were observed soaring into the southwest wind, and swiftly.

Weather conditions during the main period of observation of Broad-wing flights from the middle to the end of September were favorable. There were few days of rain or low clouds which interfered with observation. A cold front brought down the major part of Broad-winged Hawks observed the last four days of September.

Reported observations of Broad-wings are listed in a table near the end of this article.

Outstandingly interesting in the study of the movements of the Broad-winged Hawks were the following observations:

Sizeable flights seen in different places during the second half of September and involving a total of about 1900 birds unquestionably establish the Clinch Mountains in southwestern Virginia and East Tennessee, extending in continuation of the Allegheny Mountains southwestward, from Tazewell County in Virginia to Knox County in Tennessee, as a regular and major flyway for Broad-wings on fall migration.

Likewise confirmed as regular, and probably major, flyway for the Broad-winged Hawks were certain parts of the Blue Ridge Mountains and some of the adjoining tranverse ridges, at least from Grandfather Mountain near Linville, North Carolina, to Mt. Mitchell and the Craggy Mountains near Asheville, North Carolina, even though no flights of the magnitude of that witnessed at Little Switzerland and Mt. Mitchell in the fall of 1950 were observed during the current season. Noteworthy was the observation this fall of a fairly substantial flight of Broad-wings at Table Rock on the outer Blue Ridge, which lies to the East of the true Blue Ridge and rises directly from the Piedmont plateau.

Tranverse ridges connecting the Blue Ridge with the eastern chain of the Appalachian System in East Tennessee were found to serve as flyways for lesser number of Broad-winged Hawks. Pond Mountain at the northern end of the Stone Mountains and at the Virginia-North Carolina-Tennessee corner, Beech Mountain northwest of, and Hump Mountain, Yellow Mountain, Grassy Bald Mountain and Roan Mountain, all west of pivotal Grandfather Mountain are tranverse ridges along which Broad-wings were observed.

Of ridges on the East of the Tennessee Valley in Upper East Tennessee, Cold Spring Mountain proved again to be followed by substantial numbers of Broad-wings, and the Camp Creek Bald fire tower at its southern end an observation point productive of results. The same can be said of Rich Mountain fire tower a few miles down the mountain crest.

Bays Mountain, a narrow ridge in the Upper East Tennessee Valley running southwestward from near Kingsport for a distance of about 20 to 25 miles, deserves careful attention in future observations. As in 1950, comparitively large numbers of Broad-wings were observed this Fall at the north end of this ridge. It is not clear whether these birds switch over to Bays Mountain from the Clinch Mountains or from Holston Mountain.

No Broad- winged Hawks were observed in the Great Smoky Mountains area. This, however, does not preclude the possibility of their following this part of the backbone of the Southern Appalachian Mountains. It may

COUNTS OF BROAD-WINGED HAWKS DURING FALL MIGRATION 1951

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Total
Sept. 8										3 (1)					3
Sept. 9														5 (1)	5
Sept. 15					338 (14)			1 (5)	5 (1)					4 (3)	348
Sept. 16					205 (14)				3 (1)						208
Sept. 18											18 (1)				18
Sept. 19				201 (11)						3 (3)					204
Sept. 20														30 (1)	30
Sept. 21									2 (1)						2
Sept. 22	183 (17)							1 (6)						3 (10)	187
Sept. 23		9 (7)												3 (10)	12
Sept. 24									35 (1)						35
Sept. 25						11 (15)		5 (15)					128 (1)		144
Sept. 27	850 (17)														850
Sept. 28								300 (9)							300
Sept. 29			840 (16)		6 (10)		200 (4)		2 (1)			160 (8)			1208
Sept. 30			318 (13)						22 (1)						340
Oct. 6	7 (12)														7

KEY TO LOCALITIES:

A—Memphis, and 20 to 30 miles north and northeast of Memphis.
B—Walden's Ridge, Mt. Roosevelt Fire Tower 2 miles east of Rockwood, Tenn.
C—Clinch Mountain, Grainger Co., Tenn.
D—Clinch Mountain Fire Tower north of Rogersville, Tenn.
E—Hayter Knob Fire Tower, Clinch Mountain, northwest of Abingdon, Va., and vicinity.
F—Tusculum College near Greeneville, Tenn.
G—Bays Mountain, southwest of Kingsport, Tenn.
H—Camp Creek Bald and Rich Mountain, crest of Appalachians, Greene Co., Tenn.

I—Hump, Yellow, Grassy Bald, and Roane Mountains, crest of Appalachians, Carter Co., Tenn.,—Mitchell and Avery Cos., N. C.
J—Holston Mountain and vicinity, Carter Co., Tenn.
K—Pond Mountain, Tenn.-Va.-N. C.
L—Craggy Gardens and Mt. Mitchell, northeast of Asheville, N. C.
M—Table Rock, east of Blue Ridge and 15 miles northwest of Morganton, N. C.
N—Grandfather Mountain, Beech Mountain, and Blue Ridge Parkway, Avery Co., N. C.

KEY TO OBSERVERS: (1)—Fred W. Behrend, Elizabethton Chapter; (2)—Mr. and Mrs. J. B. White, Greeneville Chapter; (3)—Mr. and Mrs. Avery W. Evans, Elizabethton Chapter; (4)—Thomas W. Finucane, and sons, Kingsport Chapter; (5)—Mrs. Willis Clemens, Mr. and Mrs. J. B. White, Prof. and Mrs. C. M. Shanks, Greeneville Chapter; (6)—Mr. and Mrs. J. B. White, Prof. and Mrs. C. M. Shanks, Greeneville; (7)—Mr and Mrs. E. M. West, Elizabethton Chapter; (8)—Mr. and Mrs. W. M. Johnson, Knoxville Chapter; (9)—Fred W. Behrend, Elizabethton, and Mrs. Richard Nevius, Mr. and Mrs. J. B. White, Greeneville Chapter; (10)—Dr. Aubrey R. McKinney, Elizabethton Chapter; (11)—Richard Nevius, Greeneville, and Fred W. Behrend, Elizabethton Chapters; (12)—John J. O'Callaghan, Memphis; (13)—Andrew J. Meyerriecks, Knoxville Chapter; (14)—Stephen M. Russell, Bristol Chapter; (15)—Prof. C. M. Shanks, Greeneville Chapter; (16)—Mr. and Mrs. James T. Tanner, Knoxville Chapter; (17)—Don Wolf, U. S. Naval Air Station, Millington, Tenn.

be remembered that a flight of some substance was seen over Indian Gap in the Fall of 1950.

Notwithstanding diligent investigation there was no evidence of migration of Broad-winged Hawks along the lower part of the long-stretched Cumberland Plateau in Tennessee. A guide to future observation though may be the observation this Fall of a small number of Broad-wings along Walden's Ridge farther north on the Cumberland Plateau in the vicinity of Rockwood, Tennessee. An unusual scarcity of any kind of predators was reported from Middle Tennessee localities, more specifically Pilot Knob midway between Murfreesboro and Shelbyville, Standing Stone State Park, and river bluffs below Celina.

Surprisingly large numbers of Broad-wings were reported from West Tennessee, where, near Mason, 30 miles northeast of Memphis, a flight of 183 of these birds was observed on September 27. An estimated 850 were seen at the U. S. Naval Air Station at Millington, 20 miles north of Memphis, on September 27.

Gratifying as may be the tracing, during the Fall seasons of 1950 and 1951, of the course of migrating Broad-winged Hawks along the Clinch Mountains to their southern end northeast of Knoxville, and along part of the Blue Ridge Mountains to as far south as near Asheville, North Carolina, the uncertainty of direction of their flight thence is thought-provoking. Knowledge of flights of any substance southwest of these localities seems to be non-existent. It would not seem illogical to assume that there may be a switch-over from the Clinch Mountains to the Cumberland Plateau and continuation of flight into northern Alabama along lower ridges. Flights that have been traced down the Blue Ridge as far as Asheville are apt to continue along the Blue Ridge, but whether close to the Piedmont Plateau or over the mass of mountains to the West is problematical. Here is a field wide open for present and future ornithologists to tackle. Mass flights of Broad-winged Hawks on Fall migration appear to be compressed into a period of two to three weeks. Under most favorable weather and wind conditions they may be observed on a number of successive days, but there is always the possibility that adverse conditions may limit observation to a very few days during the migration season. This, coupled with an insufficient number of observers afield, not to speak of non-detection of flights at great height, may account for the unnoticed passing over of many times more Broad-wings than are reported.

I wish to express appreciation not only to all those T.O.S. members who took part in the project but also to Mr. Chandler S. Robbins of the Patuxent Research Refuge at Laurel, Maryland, and his co-operators in northeastern and northern states, who for the benefit of T. O. S. observers, obligingly supplied information concerning observation of hawks in their respective territories.—607 Range St., Elizabethton, Tenn.

ANOTHER DISASTER TO MIGRATING BIRDS AT THE NASHVILLE AIRPORT

By AMELIA R. LASKEY

On the night of Oct. 7-8, 1951, migrating birds suffered a disaster at the Nashville Airport (Berry Field) ceilometer, similar to the one of September 9-10, 1948, at the same place (1949, Migrant 20: 9-12). A total of 476 birds of 40 species was gathered up, practically all that fell. Of these, over 30 were alive and able to fly to some extent the following day. They were banded and released.

Through the courtesy of Mr. Thomas Farrell, I received a telephone call that birds were falling and went to the airport immediately, arriving about 10:50 p. m. and remaining until after midnight. It was a disagreeable, cold night with a gusty north wind. Although the sky was completely overcast, the ceilometer beam extended upward 2300 to 5000 feet according to airport readings for cloud ceilings for the night.

Myriads of small birds fluttered in the light of the beam, from a few feet above the low brick base, which housed the pencil-like mercury-vapor lamp, as far up as the eye could follow the beam. There must have been thousands of birds, all of which appeared to be of the smaller species. They fluttered like moths, their pale breasts gleaming as they milled and turned, giving the impression at some distance that they were moths, except that their calls and chirps never ceased for even a minute. This gathering of birds about the beam continued from evening until dawn, but apparently the birds did not fall in quick succession. None came down near me, although I spent some time at the ceilometer and adjacent runways, nor could I discern them in the darkness above me. A strong flashlight would have been very useful.

Upon my arrival, Airlines men had already gathered about 40 living birds and twice that many dead. More were picked up during the night. The following morning Mrs. Katherine Goodpasture and I searched thoroughly, collecting even those that had been flattened by planes and vehicles.

Most of the birds were on the concrete runways, with a lesser number on concrete walkways and parking places as far as 300 yards from the ceilometer. A few were in the grassy plot in which the ceilometer is located. Obviously the impact there would be greatly diminished by the cushioned surface. According to airport personnel, some that fell on the grass were able to take off. It was also obvious that most of the birds fell before there was any possibility of striking any building or tall structure. Almost all had flown south or south-west toward the brilliantly-lighted terminal building which was down wind. There are many references in the literature to the attraction or distraction of bright lights to birds flying at night, such as by lighthouses, floodlights, flood-lighted structures, automobile headlights, and illuminated house windows. Recent experiments by Gustav Kramer show that with caged migratory birds orientation after dark was toward the lights of the city when they were visible to the bird (Review. 1951, Bird-Banding 22 (4) :182-183). A relevant observation on the effect of a bright beam on bird eyes is given by Louis B. Bishop in his account of petrels flying overhead in a dense fog which he and his companion could discern only as light specks passing back and forth. Hoping to see the birds, they turned a powerful flashlight on the flying specks. When the light struck a bird's eyes, it dropped to the grass, with fluttering flight and remained there until picked up. If the light struck the bird from behind, it had no effect (1949, Condor 51 (6): 272).

Although birds had been reported by T. O. S. members as migrating over Nashville at night since early September this year, the night of October 7-8 was apparently the first time this season that any great number fell. However nearly two weeks later when weather conditions seemed similar, A. F. Ganier made two trips to the ceilometer, once about 8:00 p.m. on October 19 and again before dawn. During both observations, birds were fluttering high in the ceilometer beam. He estimated that they were flying from about 200 feet above ground to cloudheight. None fell that night.

Apparently a certain combination of weather conditions is essential to cause night migrants to congregate at a ceilometer beam and some variation is involved when the birds fly low about the beam and large numbers drop to their death. For comparison of the three periods under discussion, I tabulated data as published in the United States Weather Bureau Meteorological Summaries, considering cloud ceilings, sky cover, temperature, direction and speed of wind.

In each instance, temperatures had dropped from above normal in the preceding days to below normal on the days in question, with completely overcast skies and northerly winds prevailing, reaching highest velocities of 12, 29, 17 miles per hour, respectively, for daytime of September 9, 1948, October 7, 1951 and October 19, 1951. Ornithologists have found that variation in wind velocity and weather conditions affect heights at which birds fly in migration. C. L. Deelder and L. Tinbergen, who studied flight altitudes in three autumn migrations of Chaffinches and Starlings in Holland, say: "Strong wind causes a lower flight than light wind. This finds a very distinct expression when the wind force alters in the course of a morning. Both species descend when the wind increases and rise when the wind decreases." **(Review. 1948, Bird-Banding 19 (3) :26).** Goran Bergman in Finland who also studied migration of Chaffinches states: "In clear warm weather with weak winds, the height of flight is relatively great. In bad weather this flight ceases—flight is low.")**Review, 1950, Bird-Banding 21 (2): 62-63).** Therefore the bad weather conditions in Nashville could have influenced the birds to fly low where many were attracted to the beam.

On each of the three nights, ceilometer readings indicated that cloud ceilings were never lower than 2300 feet. But there was one point where conditions on the two disaster nights differed from the night when birds fluttered at the beam all night but did not come down. On the disaster nights, north and north-north-west winds prevailed throughout the nights at speeds up to 6 miles per hour. But on the non-disaster night (October 19-20) there had been a change in wind direction and velocity. By 6:00 p. m. it had changed from NW to NNE; by midnight there was no wind (calm) and by 6:00 a. m. there was a SE wind of 2 miles per hour. It seems quite possible that this change in wind velocity and direction kept the birds high in the beam where the light was considerable diffused. As Mr. Ganier saw no difference in the numbers in the beams at 8:00 p. m. and 4:30 a. m. he believes that the same birds remained all night. That is possible, but there is also the possibility that the composition of the flock changed during the night. It would be necessary to follow the movements of individual birds to determine what actually happened. However it seems logical that if all birds did remain at the beam all night, those that fell on the disaster nights from exhaustion or other causes would lie near the base of the beam. That was not the case, so it appears that numbers attempted to leave and the eyes of some of these could not become adapted quickly enough to the change from the brilliant beam to the relative darkness immediately beyond it, so that after short flights, they were forced to drop and died from injuries inflicted by contact with hard surfaces.

Determination of exact cause of death to the birds must necessarily be deferred to future studies, but casual examinations indicated that in many instances there were brain injuries from striking the concrete. The case of a Brown Thrasher is worthy of mention. It fell in the grassy area near the ceilometer. There were no obvious body injuries but the occipital region of the skull was reddened as if from a hemorrhage and there was a pronounced prolapsis of the intestine, folds of which protruded, rosette-like.

The birds that were gathered may be considered a sample of the great horde of migrants passing over that particular area that night. I have made a very careful examination of each individual, making notes on plumage variations and taking measurements. A number of people came to study the puzzling species that are confusing in autumn plumage; a number have been made into study skins for private collections. Our deep-freeze refrigerator was invaluable for holding the birds indefinitely. Tennessee Warblers led in casualty number, 100 being found, Magnolia Warblers next with 71. Among the five species of vireos, it was surprising to find 37 Philadelphia Vireos because it is not commonly listed in numbers on our field trips. The outstanding find was a Black-poll Warbler which is the first autumn specimen for the Nashville area. As this species is considered very rare in Tennessee in autumn migration, and is easily confused with the autumn Bay-breasted Warbler (1934, Wilson Bulletin 46 (3): 142-147), the bird was made into a study skin by Mr. Ganier and sent to Dr. J. W. Aldrich of the U. S. Fish and Wildlife Service, Washington D. C. A letter from Dr. A. J. Duvall verifies the identification.

Exclusive of the 28 individuals that were too badly mangled for identification, the list of species and numbers of individuals gathered up follows:

Yellow-billed Cuckoo	2
Black-billed Cuckoo	1
Whip-poor-will	1
Yellow-bellied Flycatcher	1
Wood Pewee	1
Long-billed Marsh Wren	2
Short-billed Marsh Wren	1
Catbird	2
Brown Thrasher	1
Wood Thrush	1
Olive-backed Thrush	4
Gray-cheeked Thrush	1
White-eyed Vireo	2
Yellow-throated Vireo	6
Red-eyed Vireo	11
Philadelphia Vireo	37
Warbling Vireo	1
Black and White Warbler	3
Tennessee Warbler	100
Nashville Warbler	4
Parula Warbler	2
Magnolia Warbler	71
Black-throated Green Warbler	9
Blackburnian Warbler	3
Chestnut-sided Warbler	22
Bay-breasted Warbler	14
Pine Warbler	1
Black-poll Warbler	1
Palm Warbler	4
Ovenbird	57
Northern Water-thrush	2
Mourning Warbler	1
Northern Yellowthroat	34
Wilson's Warbler	1
American Redstart	2
Scarlet Tanager	8
Summer Tanager	2
Rose-breasted Grosbeak	4
Indigo Bunting	26
Grasshopper Sparrow	2
Unidentifiable because badly mangled	28

—1521 GRAYBAR LANE, NASHVILLE, TENN.

THE BIRDS OF VIRGINIA

The Virginia Society of Ornithology plans to publish early in 1952 **A Check-List of the Birds of Virginia,** by J. J. Murray. It will contain 80 or more pages, with introductory chapters on Virginia ornithology, with copious quotations from 17th Century writers, and with a short bibliography. Most of the book will be devoted to a fully annotated list of the birds of the State, with migration and nesting dates, and discussions of changes in status. The pre-publication price, on all orders mailed before March 1, will be $1.00; thereafter the price will be $1.50. Orders should be sent to A. O. English, 2803 Rosalind Avenue, Roanoke, Virginia.

AN ACCIDENT TO MIGRATING BIRDS AT THE KNOXVILLE AIRPORT

By JOSEPH C. HOWELL and JAMES T. TANNER

Approximately 1000 birds were killed around the ceilometer of the Tyson-McGhee airport near Knoxville, Tenn., on the night of Oct. 7-8, 1951, the same time at which similar accidents occurred at Nashville and at Smyrna, Tenn. These latter two are reported in other articles in this issue of THE MIGRANT. Some airline pilots reported at Knoxville that they had seen or had heard of another accident that same night at Louisville, Ky. These accidents indicate that there probably was a large and widespread migration of birds on that night.

At Knoxville the temperature fell from 56 degrees at 8 p. m. on Oct 7 to 51 degrees the following 6 a. m. Between these same hours the wind varied between NW and NNE and between 0 to 10 miles per hour. The cloud ceiling varied between 3600 to 4200 feet above the airport. There was a temperature inversion in the top part of the cloud ceiling.

Judging from the accounts of various eye-witnesses, birds began to fly thru the intense, vertical beam of the ceilometer and to circle it in numbers about 10 p. m.; they increased and became most abundant between midnight and 2:30 a. m. Birds were still in the light at 4 a. m., but were not as numerous. When they were thickest, they, as the observers said, "looked like insects in the summertime", and the column of birds was easily visible from the airport building, about 1000 feet from the ceilometer. Birds were flying thru the light from the ground to cloud level, most abundant near the ground.

Birds were first observed hitting the concrete pavement in the lighted area around the airport building about 11:00 p. m.; there was apparently no observation of when this ceased. Some hit the ground so forcibly as to bounce. Many birds, including some Mourning Doves, landed unhurt. Some of these were picked up by people at the airport, held in the hand for a while, and released to fly away. The next day there were still several living birds on the airport grassy areas and around the buildings, some obviously crippled and others able to fly.

On the following day six people from the University of Tennessee went to the airport; they were Honorico Ciordia, Joseph C. Howell, Arthur W. Jones, Clayton Kerley, Andrew J. Meyerriecks, and James T. Tanner. They systematically searched the area around the ceilometer. Most of the birds found were simply identified and recorded. All Oven-birds, which were commonest, that had not been crushed by truck or plane wheels, were saved for further examination, and all specimens of rare birds or questionable identity were saved for later checking.

A total of 46 species and 1044 individuals were found dead. Oven-birds were by far the most abundant. The second to the fifth in abundance were

Chestnut-sided Warblers, Tennessee Warblers, Bay-breasted Warblers, and Magnolia Warblers. A complete list of the numbers of each species follows: Sora Rail, 6; Wilson's Snipe, 1; Mourning Dove, 2; Yellow-billed Cuckoo, 1; Black-billed Cuckoo, 1; Whip-poor-will, 1; Phoebe, 2; Acadian Flycatcher, 1; Yellow-bellied Flycatcher, 1; Wood Pewee, 4; Catbird, 5; Wood Thrush, 4; Olive-backed Thrush, 17; Gray-cheeked Thrush, 4; White-eyed Vireo, 2; Yellow-throated Vireo, 7; Red-eyed Vireo, 42; Philadelphia Vireo, 4; Black and White Warbler, 14; Swainson's Warbler, 1; Tennessee Warbler, 80; Orange-crowned Warbler, 4; Magnolia Warbler, 61; Cape May Warbler, 2; Black-throated Blue Warbler, 2; Black-throated Green Warbler, 25; Blackburnian Warbler, 39; Yellow-throated Warbler, 2; Chestnut-sided Warbler, 90; Bay-breasted Warbler, 63; Black-poll Warbler, 2; Pine Warbler, 1; Palm Warbler, 17; Oven-bird, 387; Northern Water-thrush, 3; Kentucky Warbler, 2; Yellow-throat, 32; Yellow-breasted Chat, 3; Hooded Warbler, 35; Canada Warbler, 2; Redstart, 9; Bobolink, 2; Scarlet Tanager, 4; Rose-breasted Grosbeak, 3; Indigo Bunting, 21.

The most unusual records for the Knoxville area were those of the Philadelphia Vireos, Swainson's Warbler, and Black-poll Warblers.

The Oven-birds were examined for evidence of damage and it was found that most of them showed some damage to the head, such as blood clots beneath the skull, a broken skull, or a broken bill. This indicates that the birds were killed by striking the ground. Some individuals have thought that the light itself, being an intense mercury vapor light, might be the cause of death, but L. J. Buttolph of the General Electric Company, an expert on the effects of radiations on living things, when consulted on this stated that there was no reason to believe this to be true.

The dead birds lay within an area about 2000 feet in diameter centered a little to the south of the ceilometer. 1400 feet was the greatest distance from any bird found to the ceilometer. They were most abundant on the concrete runways and aprons between the ceilometer and the main building.

The night of Oct. 29-30 was the first following the accident at the Knoxville Airport when the weather conditions seemed to approach those of Oct. 7-8. One of us (J. T. T.) went to the airport to see if anything was happening. At 11:30 p. m. the ceiling was at 5500 feet and within an hour it had lowered to 4000 feet. There was a slight drizzling rain from 11:10 to 11:50 and almost no wind. Several birds were seen to fly thru the beam, at an elevation of about 300 to 500 feet. For one period of about five minutes (11:40 to 11:45 p. m.) 60 birds were counted flying thru the beam; they seemed to decrease in numbers after this. All of the birds were small except for a Night Heron which was not only seen in the beam but also heard. All of the birds passed thru the light quickly and neither fluttered nor changed their course, and there was no sign of birds falling or of dead ones on the ground. Besides the birds there were about a dozen bats circling and flying thru the beam, apparently catching insects. Some of these passed thru the light within a foot or two of its source without any change in their direction or behavior.

DEPT. OF ZOOLOGY, UNIVERSITY OF TENNESSEE, KNOXVILLE,TENN.

AN ACCIDENT TO BIRDS AT THE CEILOMETER NEAR SYMRNA

By CPL. KENNETH A. LABAND

On the night of October the 7th, 1951, at approximately 9 p. m. my attention was attacted by bright specks of light spiralling up and down at all altitudes in the beam of the Sewart Air Force Base ceilometer at Smyrna, Tenn. Although on closer approach I could hear much twittering, the idea that these birds were in the light seemed too fantastic to be considered a possibility. On the morning of the 8th I found several dead birds in the vicinity of the barracks, and in a short time traced the main body of dead birds to the base of the ceilometer. Being rushed for time and totally ignorant on the subject of American birds, I picked up only the most conspicuously different species, which were at once forwarded to the National Audubon Society in New York for identification.

The list of species identified by persons of the Audubon Society follows: Virginia Rail, Sora Rail, Catbird, Olive-backed Thrush, Wood Thrush, Black and White Warbler, Magnolia Warbler, Yellow-throat, Summer Tanager, and Purple Finch. In addition to these I described a strikingly marked species to Mrs. F. C. Laskey who identified it as a Redstart.

An accurate count of dead birds was not possible because of lack of time. I counted, however, the birds in one wedge-shaped area with its point at the ceilometer, judging my wedge to be one sixth of the area of a circle. There were 167 birds in this wedge, making a total of approximately 1000 dead birds around the ceilometer. Later that day I found birds scattered as much as half a mile away.—SEWART AIR FORCE BASE, TENNESSEE

NOTE: The following information is from a letter to the editor from Mrs. Laskey: Corporal Laband told her that on the same night that Mr. Ganier saw the birds in the ceilometer at Nashville (see Mrs. Laskey's article), he also saw birds fluttering in the beam of the Sewart Air Force Base ceilometer.—Ed.

CORRECTIONS

In Eugene Cypert's note on the trapped Great Horned Owl, page 12 of the March 1951 MIGRANT, "July 23, 1950" should have been "January 23, 1950". In the note on the effect of the 1951 storm on Bluebirds, by Amelia R. Laskey, page 42 of the September 1951 MIGRANT, the temperature of "13 degrees" should have read "13 degrees below zero".

A MERRY TIME TO REMIT

Now is the time to pay for your 1952 membership! Members of Chapters should pay thru their Chapter Treasurer. Others can pay directly to the T. O. S. Treasurer; Mr. Lawrence C. Kent, 1896 Cowden Avenue, Memphis 4, Tenn. Be sure to include the postal zone number in your address if you have one.

THE 1951 CHRISTMAS SEASON BIRD COUNTS

By T. O. S. MEMBERS

A new record in the State-wide list of species observed on Christmas counts was set this year, a grand total of 116. The previous record was set in 1942 with a total of 108. Four species were seen for the first time in the State on these counts: American Egret, seen at Reelfoot; Green Heron, at Nashville; Ring-necked Pheasant, at Kingsport; and Evening Grosbeak, in the Smokies. A Loon was reported for the first time since 1942 and Brewer's Blackbirds for the first time since 1945.

Some interesting changes in numbers are evident upon study of the reports. Blue and Snow Geese were reported in larger numbers than ever, probably because of the goose refuge at Reelfoot. Bobwhite were few in numbers compared with previous years; this year only three localities reported a grand total of 36 Bobwhite observed while usually from four to six localities report a total of over 100 birds. This slump might have been caused by the ice storms and cold spells of last winter. Careful study of the numbers of other species might show further and still-evident results of the storms.

In the table and descriptions that follow, the localities are listed from west to east. Under the heading "Information on the Counts" are described the areas, types of habitats covered, weather conditions, number of observers or parties, miles covered, number of species and approximate number of individual birds observed, and the names of the observers. The species and numbers of individuals observed at each locality are listed in the table, except for the report from Roan Mountain which is entirely included in paragraph form to enable including the altitudinal information. For additional information on records marked with an asterisk(*), see the paragraph containing information on the locality.

Information On The Counts

MEMPHIS, TENN. (1946 area plus Penal Farm to offset suburban build-up; wooded bottomlands 30%, deciduous woodlots including city parks 25%, old cottonfields, pastures, airports, and farm 25%, suburban roadsides 20%). Dec. 23, 1951; 6:45 a. m. to 5:15 p. m.; part cloudy; temp. 40 to 56 to 51 degrees; wind 3-7 m. p. h.; muddy; Loosahatchie bottoms flooded and inaccessible. Thirty observers, 4 main parties, breaking up at various localities, 3 smaller parties, 3 individuals (one at sickroom feeding shelf). Total party-hours afield, 94 (72 on foot, 22 in car); total party-miles, 248 (70 on foot, 178 by car). 82 species, about 26,006 individuals. Mr. and Mrs. Ben B. Coffey Jr., (compiler), Cooper and Mrs. Floy Barefield, Mrs. Elizabeth Barton, Fred Carney, Mrs. Irene Daniel, Harry Geyer, Richmond Gill, Jack Goodman, Johnny Johnson, Victor Julia, Luther F. Keeton, Lawrence Kent, Charles Marcus, Muriel Massey, Charles McPherson, Jr., Mrs. J. H. McWhorter, Jim McWhorter, Nelle Moore, John J. O'Callaghan, T/Sgt. Eugene Parish, George Peyton, Charles Seahorn, Alice H. Smith, R. Demett Smith, Jr., Brother Leo Thomas, Mrs. M. L. Torti, Dr. Wendell Whittemore, and Alan

Ziegler. The Blue-headed Vireo (2d record) was identified by Demett Smith, the Bald Eagle (1st record) by Lawrence Kent. The species count of 82 exceeds the former record of 78, made in 1941. In addition to the numbers listed in the table there were seen: unidentified ducks, 1050; Starlings, 9786; Purple Grackle, 5133; unidentified blackbirds, 1575; White-throated Sparrow, 1333.

REELFOOT LAKE, TENN. (from Tiptonville east around lake via Spillway and Samburg to Walnut Log, including cypress swamps and bottomlands, 50% deciduous woodland, mostly bottoms, 20% open lake, 10% saw grass marsh, 15% roadside, 5% farmland. Essentially the same area as in past.)-Dec. 30, 1951; 9:30 a. m. to 5:30 p. m. Overcast in a. m., clear in p. m.; temp 60 to 80; wind SW, 3-10 m. p. h. with gusts to 30 m. p. h. in p. m. Eight observers in three or two parties. Total hours 16½ (9 on foot, 6 on boat, 1½ in car); total miles 67 (16 on foot, 7 in boat, 44 by car). Howard and Evelyn Barbig (compiler), Fred Griffin, George Peyton, Richmond Gill, Johnny and Ralph Johnson, Billy Weeks. The Yellow-throat and House Wren were observed at close range by all members of the party. In addition to this count, another was made in the same general area three days earlier by Thomas Walker, Jr., and P. W. White, Jr. The numbers reported in the table are those seen by the larger party on Dec. 30 except for the following which were reported by Walker and White and which are marked in the table by an asterisk: American Egret, observed at 50 feet with 7x glasses; Canada Goose, 1214; Redhead; Duck Hawk; Screech Owl; Red-wing Blackbird 1,224,000 (same method of estimation as in previous years); Tree Sparrow; White-crowned Sparrow.

NASHVILLE, TENN. (Localities and terrain same as last year).—Dec. 23, 1951; 6:30 a. m. to 4:30 p. m. Clear, visibility good. Temp. 30 to 54. Wind very light. Ground bare, frozen in a. m. 17 observers in 6 parties. Total party-hours 57 (39 on foot, 18 by car); total party-miles 92 (24 on foot, 68 by car). 63 species, about 15,094 individuals.—B. H. Abernathy, Mrs. W. F. Bell, William Crouch, Helen DeSort, Albert F. Ganier (compiler), Mrs. E. W. Goodpasture, Mrs. F. C. Laskey, Geo. R. Mayfield, Larry McLain, Jennie Riggs, Jas. A Robins, George Rosenman, Edward Schreiber, Dan Schreiber, William Stuyvesant, and Mr. and Mrs. J. E. Ziegler, (members Nashville chapter T. O. S.).—The Green Heron here makes it's first appearance on a Tennessee Christmas count, found by Abernathy and Robins on Little Harpeth river and viewed next day by Ganier and Mayfield. The Loon, grebes and ducks were seen on Radnor Lake. The geese were reported by Stuyvesant. Of the Doves, 100 were seen together in river bottoms. 11,525 Starlings were seen in scattered flocks; no roosts have been located in the area. Goldfinches present in abnormaly large numbers. feeding chiefly on teasel pods. The Red-breasted Nuthatch was seen by Mrs. Goodpasture, who found it again three days later.

LEBANON, TENN.—Dec. 26, 1951, part of day only. Dark and cloudy; temp. around 35, cold NW wind, ground full of water. 11 observers. 37 species, about 2414 individuals. Robert Carver Bone, Mrs. Robert Cox, Fairman

TABLE OF 1951 CHRISTMAS BIRD COUNTS

SPECIES	Memphis	Reelfoot	Nashville	Lebanon	Murfreesboro	Great Smokies	Greeneville	Johnson City	Elizabethton	Kingsport
Common Loon	......	......	*1	......	......	......	......	......	......	......
Horned Grebe	3	......	*1	......	......	......	......	......	......	......
Pied-billed Grebe	1	13	*1	......	......	......	......	......	3	......
Double-crested Cormorant	1	115	......	......	......	......	......	......	......	......
Great Blue Heron	7	8	1	......	......	......	4	......	......	......
American Egret	......	*1	......	......	......	......	......	......	......	......
Green Heron	......	......	*1	......	......	......	......	......	......	......
American Bittern	......	......	......	......	......	......	1	......	......	......
Canada Goose	117	*	*60	......	13	......	......	......	......	......
Snow Goose	......	6	......	......	......	......	......	......	......	......
Blue Goose	......	62	......	......	......	......	......	......	......	......
Mallard	15	181	......	......	......	......	1	23	1	......
Black Duck	......	16	......	......	......	......	......	......	......	......
Pintail	......	43	......	......	......	......	......	......	......	......
Green-winged Teal	......	2	......	......	......	......	......	......	......	......
Blue-winged Teal	8	......	......	......	......	......	......	......	......	......
Baldpate	......	63	......	......	......	......	......	......	......	......
Shoveller	......	6	......	......	......	......	......	......	......	......
Wood Duck	1	2	......	......	......	......	......	......	......	......
Redhead	4	*4	......	......	......	......	3	......	......	......
Ring-necked Duck	12	217	......	......	......	......	......	......	......	......
Canvas-back	9	4	......	......	......	......	......	......	......	......
Lesser Scaup Duck	31	360	1	......	......	......	......	2	2	......
American Golden-eye	......	72	3	......	......	......	......	......	1	......
Bufflehead	......	1	......	......	......	......	......	......	6	......
Ruddy Duck	2	2	1	......	......	......	......	......	......	......
Hooded Merganser	1	6	......	......	......	......	......	......	1	......
American Merganser	......	3	......	......	......	......	......	......	......	......
Turkey Vulture	68	3	......	......	......	4	42	1	3	3
Black Vulture	14	6	5	12	6	11	1	......	......	1
Sharp-shinned Hawk	......	......	1	......	......	1	......	1	......	......
Cooper's Hawk	1	1	4	2	1	......	1	1	1	......
Red-tailed Hawk	20	8	8	1	1	4	1	......	......	2
Red-shouldered Hawk	9	6	1	......	......	......	1	......	......	2
Bald Eagle	*1	7	......	......	......	......	......	......	......	......
Marsh Hawk	4	2	......	......	......	......	2	......	......	......
Duck Hawk	......	*2	......	......	......	1	......	......	......	......
Sparrow Hawk	33	3	18	4	2	4	5	2	6	3
Ruffed Grouse	......	......	......	......	......	11	......	......	......	2
Bob-white	19	8	......	......	......	......	......	9	......	......
Ring-necked Pheasant	......	......	......	......	......	......	......	......	......	*2
Coot	......	54	......	......	......	......	......	......	......	......
Killdeer	197	5	133	13	2	14	4	22	2	9
Wilson's Snipe	35	......	1	......	......	1	......	......	......	7
Herring Gull	......	5	......	......	......	......	......	......	......	......
Ring-billed Gull	21	165	......	......	......	......	......	......	......	......
Mourning Dove	21	4	*115	18	2	105	64	1	15	2
Screech Owl	1	*1	1	......	1	......	1	1	......	......
Great Horned Owl	......	1	......	1	......	2	......	......	......	......

1951 CHRISTMAS BIRD COUNTS—Cont.

SPECIES	Memphis	Reelfoot	Nashville	Lebanon	Murfreesboro	Great Smokies	Greeneville	Johnson City	Elizabethton	Kingsport
Barred Owl	4	3	......	......	......	......	......	......	......	......
Belted Kingfisher	16	11	2	1	......	1	4	......	6	1
Flicker	179	36	59	7	2	4	13	1	10	4
Pileated Woodpecker	3	7	8	2	1	10	5	......	......	......
Red-bellied Woodpecker	71	17	25	5	......	......	9	......	1	1
Red-headed Woodpecker	11	1	2	......	......	......	3	......	......	......
Yellow-bellied Sapsucker	15	1	13	4	......	2	2	1	......	2
Hairy Woodpecker	9	4	6	1	......	8	4	1	......	1
Downy Woodpecker	55	15	35	6	1	12	12	......	11	12
Phoebe	......	......	......	......	......	2	4	......	4	1
Horned Lark	134	......	192	......	......	35	......	22	......	6
Blue Jay	404	8	23	1	4	13	39	2	10	17
Raven	......	......	......	......	......	5	......	......	......	......
Eastern Crow	211	49	165	89	42	400	*	50	506	71
Fish Crow	9	......	......	......	......	......	......	......	......	......
Black-capped Chickadee	......	......	......	......	......	*	......	......	......	......
Carolina Chickadee	230	48	73	7	......	*250	94	1	51	40
Tufted Titmouse	123	33	39	4	......	12	60	1	31	47
White-breasted Nuthatch	7	7	......	......	......	6	8	......	3	18
Red-breasted Nuthatch	......	......	1	......	......	19	8	......	......	5
Brown Creeper	12	3	3	......	......	7	3	......	1	2
House Wren	......	*1	......	......	......	......	......	......	......	......
Winter Wren	28	7	2	......	......	6	......	......	1	......
Bewick's Wren	1	......	3	......	1	......	2	......	......	1
Carolina Wren	130	28	30	2	1	24	46	......	65	28
Long-billed Marsh Wren	......	3	......	......	......	......	......	......	......	......
Short-billed Marsh Wren	......	1	......	......	......	......	......	......	......	......
Mockingbird	115	1	49	5	3	3	37	6	15	13
Brown Thrasher	35	......	......	......	......	......	......	......	......	......
Robin	207	7	595	24	6	1	......	......	3	......
Hermit Thrush	27	......	2	......	......	2	......	......	......	......
Eastern Bluebird	31	5	98	6	2	30	63	3	21	19
Golden-crowned Kinglet	71	8	2	......	......	27	3	......	5	......
Ruby-crowned Kinglet	5	1	......	......	......	1	......	......	......	......
American Pipit	3	......	......	......	......	......	......	......	......	......
Cedar Waxwing	266	......	11	......	......	2	......	......	11	56
Loggerhead Shrike	52	5	3	......	3	1	1	1	1	1
Starling	*	203	*	*	22	250	250	25	285	*
Blue-headed Vireo	*1	......	......	......	......	......	......	......	......	......
Myrtle Warbler	111	2	53	1	......	1	48	......	14	7
Yellow-throat	......	*1	......	......	......	......	......	......	......	......
English Sparrow	475	250	147	81	......	82	141	9	166	39
Eastern Meadowlark	567	17	118	30	15	25	63	......	51	......
Red-winged Blackbird	113	*	......	......	......	7	2	......	......	......
Rusty Blackbird	10	25	4	......	......	......	......	......	......	......
Brewer's Blackbird	134	......	......	......	......	......	......	......	......	......
Purple Grackle	*	600	32	651	100	......	......	......	......	......
Cowbird	206	117	8	......	......	1	......	......	......	......
Cardinal	685	69	204	52	16	67	193	2	98	71

1951 CHRISTMAS BIRD COUNTS—Cont.

SPECIES	Memphis	Reelfoot	Nashville	Lebanon	Murfreesboro	Great Smokies	Greeneville	Johnson City	Elizabethton	Kingsport
Evening Grosbeak						*15				
Purple Finch	53	4	12	9		3	2			
Pine Siskin			1			37				
Goldfinch	210	35	*604	27	2	49	66	9	55	25
Red Crossbill						1				
Red-eyed Towhee	95	1	115	6	1	4	6	1	5	21
Savannah Sparrow	38	2				4				
Leconte's Sparrow	7									
Vesper Sparrow		8								
Slate-colored Junco	612	27	218	54	11	150	175	55	67	23
Tree Sparrow		*7								
Field Sparrow	156	1	40	18	7	60	222	4	41	12
White-crowned Sparrow	15	*10	61	6	11		28		32	8
White-throated Sparrow	*	99	78	4	2	56	34		32	64
Fox Sparrow	113	3	1	2		2	2		3	
Swamp Sparrow	144	163	5			2		1		
Song Sparrow	249	43	71	5	3	83	80	10	45	24
Lapland Longspur	15									
Total Species	82	*89	63	37	30	58	51	30	43	43

Cummings, Albert F. Ganier, Mary Frane Halloway, George Mayfield, Dixon Merritt, Dan Schreiber, Jimmy Shaw, Paul Stout, Mrs. Henry Waters (compiler). The number of Starlings seen was 1253.

MURFREESBORO, TENN.—Dec. 28, 1951. In the field about three hours. Temp. 55, very cloudy, wind high. 30 species, about 284 individuals. H. O. Todd, Jr., Harvard Todd.

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N. C.—(circle of 7½ mile radius centering on Bull Head of Mt. LeConte; town of Gatlinburg and Pigeon Forge, Tenn., altitude 1200 to 6593 ft.; spruce-fir forest 35%, deciduous forest 30%, farmland and abandoned fields 25%, town and suburbs 10%). Dec. 30, 1951; 6:30 a. m. to 6:00 p. m. Overcast to partly cloudy; temp 45 to 70 degrees; wind variable, 5-25 m. p. h.; snow melting at high altitudes, ground bare in lowlands. Forty observers in 10 parties. Total party-hours, 80 (66 on foot, 14 by car); total party-miles, 205 (70 on foot 135 by car). 58 species, about 1940 individuals. Jon Beasley, Rolf v. Boenninghausen, Mary Ruth Chiles, Brockway Crouch, Richard Culver, Howard Davenport, Hugh Davis, Jr., Ronny Davis, Jack A. Ellis, Robert Hornsby, Jimmy Huff, Philip Huff, Anders Hustvedt, Mr. and Mrs. William Johnson, Hugh Finley Larue, Richard Lawrence, Mr. and Mrs. Frank Leonhard, Henry W. Lix, Richard A. Lorenz, Dorothy MacLean, Mr. and Mrs. R. A. Monroe, Elise Morrell, Carl Newman, Jr., S. A. Ogden, J. B. Owen, Robert Scott, Royal E. Shanks, Arthur Stupka (compiler), Gerhard

Tackmann, Charles Thompson, Louise Thompson, Clyde Trentham, Dietrich Wilde, Ralph G. Williams, William Yambert, (T. O. S., National Park Service, and friends). In the count of 250 are included both Black-capped and Carolina Chickadees. A single Evening Grosbeak was observed at close range in Newfound Gap by Stupka, while a flock of 14 were seen by Yambert, Ogden and Beasley in sycamores along the Little Pigeon River near Pigeon Forge; on Dec. 15 a dozen of these birds were seen at Park Headquarters, the first record for the Great Smokies, and on Jan. 7 a flock of 22 was seen at the same place; this is the southernmost record of this species in the southern Appalachians.

GREENEVILLE, TENN. (7½ mile radius about Greeneville, including Lick Creek, Roaring Fork Creek, Tusculum, Afton, Shiloh, White's Mill, Frank Creek, Brown's Bridge to Bird's Bridge on the Nolichuckey River; stream banks 40%, deciduous woods 25%, open fields and thickets 30% city suburbs 5%).—Dec. 28, 1951; 8:00 a. m. to 4:30 p. m. Partly cloudy; temp. 24-45; wind 5 m. p. h. from SW. Seven observers traveling in four parties. Party-hours 49; total miles 75 (15 on foot, 60 by car). 51 species, about 21.863 individuals. Mr. and Mrs. Richard Nevius, Mr. and Mrs. J. B. White, Mr. and Mrs. Alfred Irvine, C. M. Shanks (compiler). The number of crows reported was an estimated 20,000.

JOHNSON CITY, TENN.—Jan. 1, 1952. 30 species, about 267 individuals. One observer, Robert B. Lyle.

ELIZABETHTON, TENN. (same area as in previous years). Dec. 30, 1951; 7:30 a. m. to 5:30 p. m. Overcast with drizzle to clear; temp. 50 to 68; wind 0 to 15 m. p. h. Twelve individuals in 6 parties; 35 party-hours; 22 miles on foot, 126 miles by car. 43 species, about 1691 individuals. Mr. and Mrs. Avery Evans, Mr. and Mrs. J. C. Browning, Mrs. Ruth Hughes, Dickie Hughes, Mr. and Mrs. Lee R. Herndon (compiler), Mrs. Hugh L. Taylor, Mrs. Winnie Range, Miss Mary Cook, Dr. A. R. McKinney.

KINGSPORT, TENN. (Gray Station, Colonial Heights, residential district, Ridgefields, North and South Fork Holston River; residential area 20%, wooded land 30%, open fields 40%, rivers and ponds 10%.)—Dec. 30, 1951; 7:00 a. m. to 5:30 p. m. Overcast and sunshine; temp. 40 to 70; wind 0-5 m. p. h; no ice or snow. Fourteen observers in 6 parties. Total party-hours, 23 (21 on foot, 2 in car); total party-miles, 47 (15 on foot, 32 in car). 42 species, about 2175 individuals. Dr. and Mrs. M. J. Adams, Carlton Crane, Paul Guthrie, Ed Gift, Richard Gift, Helen Harris, Mr. and Mrs. W. C. McHorris (compiler), Dorothy Pike, Deborah Pike, Anne Switzer, Eddie Triebe, Dorothy Vestal. The two Ring-necked Pheasants were seen in the Cliffside area by Carlton Crane. We think these birds are survivors of two dozen that were planted in the Holston Defense area, approximately 7 miles west of Cliffside, in October 1949 by the Rod and Gun Club. About a year ago two pheasants were seen near Bays Mountain across from Holston Defense area, and according to a statement by one of the Rod and Gun Club members, the two birds reported here are the only ones seen since that time. The number of Starlings was 1500.

ROAN MOUNTAIN AND GRASSY BALD MOUNTAIN, TENN.-N. C.

(from Tenn. side to Carver's Gap and Roan High Knob, Round Bald, Jane Bald, Grassy Bald and return; altitude range 3750 to 6200 ft.; deciduous woods 60%, spruce and fir mixed with rhododendron and alder 20%; alder balds 20%).—Dec. 30, 1951, 7:00 a. m. to 4:00 p. m.; cloudy till noon with mountain tops above 5500 ft. in clouds, sunny but hazy in afternoon; temp. 48-44-46; wind SW 5-25 m. p. h.; 2-3 inches crusted snow in woods on northern slopes, balds bare but ground wet, old road covered with ice in many places. Total hrs., 9; total miles, 10 (on foot). Ruffed Grouse, 2(4800 and 5300 ft.); Downy Woodpecker, 5 (4800 to 5100 ft.); Blue Jay, 2 (5300 ft.); Raven, 1 (6200 ft.); Am. Crow, 2 (4100 ft.); Tufted Titmouse, 8 (4800 to 5000 ft.); White-breasted Nuthatch, 2 (4800 ft.); Red-breasted Nuthatch, 1 (4800 ft.); Carolina Wren, 1 (3900 ft.); Cardinal, 1 (4600 ft.); Slate-colored Junco, 6 (3900 to 5500 ft.); Song Sparrow, 1 (3900 ft.). Total, 12 species, 32 individuals. Note: no small birds in coniferous forest and on balds from 5500 to 6200 ft.—Fred W. Behrend (Elizabethton Chapter, T. O. S.).

THE ROUND TABLE

MIGRATING TURKEY VULTURES—On October 20, 1951, the writer witnessed a migrating flock of 130 birds of this species **(Cathartes aura), at** a point near Ashland City, 20 miles west of Nashville. When first seen, at 5 p. m., about 75 of them were milling about at about 1200 feet above the ground, over the north side of the Cumberland River. About 30 more then straggled in from the eastward, catching up as it were, and then the entire flock strung out and drifted westward down the river. There they joined another flock of 25 or more which were scouting the Sulphur Springs cliffs a mile away. It is probable that they spent the night on the cliffs or in the heavy forest back of them. Next morning at 8:30, about 40 of them were still present at the cliffs but these departed westward down the river during the morning. No Black Vultures appeared, as would have been the case had the other species gathered for a food attraction. At a later date the location was checked at sundown and no vultures were found present. Migrating flocks, such as the one described, are believed to be individuals which come from the northern portion of their range, enroute to points further south. This species is fairly common during the summer but is uncommon during the winter about Nashville.—ALBERT F. GANIER, Nashville 12, Tenn.

ORANGE-CROWNED WARBLER IN DECEMBER——On Dec. 2, 1951, I identified one of these birds near Nashville and it was a matter of especial interest since it is the first record made for this area during the three winter months. In fact, local observers regard it as a rare transient. Upon superficial examination, it might be confused with other brush frequenting warblers such as the female Maryland Yellowthroat, the Tennessee, or the Nashville Warblers, but the lack of yellow and the entirely greenish appearance, below as well as above, makes for certain identity. The bird was feeding in head-high Johnson grass on the bank of the Cumberland

River in Bell's Bend, in company with Song and Swamp Sparrows. This warbler has been found a number of times at Memphis in winter, by Coffey, Tucker, Burdick, Smith and others.—A. F. GANIER, Nashville 12, Tenn.

EVENING GROSBEAKS NEAR GREENEVILLE—Eleven Evening Grosbeaks were seen at our home near Tusculum, Greene County, Tennessee, on Saturday, Nov. 17, 1951. They were in a box-elder tree which had a large supply of seeds, remaining in the tree for four days until they left on Nov. 20. One single bird reappeared on Nov. 22, and was seen by J. B. White, Robert White, and myself. The eleven were seen by Mr. and Mrs. J. B. White, Mrs. Alfred Irvine, and myself.—ALFRED IRVINE, Tusculum, Tennessee.

NOTES FROM THE MEMPHIS AREA—Mild weather was interrupted Oct. 9 with a record cold (37 dg.) while the earliest snow in forty years came Nov. 2, still earlier than last year's "norther" on Thanksgiving. Early December was mild, reaching 76 on the 6th. The ducks, reportedly in greatest numbers of the decade, came in with the cold weather and spread out in the flooded bottomlands. Of interest were 25 Redheads, 1000 Ruddy Ducks, and 19 Horned Grebes at or near Horseshoe Lake, Ark., Nov. 4 (R. D. Smith, Jr.). At 8:30 p. m., Nov. 15, a flock of Blue and Snow Geese were headed south of Coffey Grounds. They passed over and were seen low enough for a rough count of 200. The Geese, late transients and going north, were evidently confused on this drizzly night. Six hours later R. D. Smith, Jr., heard 20 to 30 moving west.

T. O. S. members on the watch for migrating hawks saw only one group, 7 Broad-wings, Oct. 6, Overton Park (O'Callaghans and others). Don Wolf of Buffalo, N. Y., now at the Naval Base, reported 183 Broad-wings near Mason, Tenn., on Sept. 22, and an estimated 850 over the base on Sept. 27. With the Broad-wings in the first flock he reported 3 Sharp-shins, 1 Red-tail, 1 Osprey, and 6 others; in the second flock were 20 Sharp-shins, 4 Red-tails, and 7 Sparrow Hawks.

A Golden Eagle was seen Dec. 16 by R. D. Smith, Jr., and Floy Barefield on U. S. 70 in Monroe Co., Ark., just east of the Prairie Co. line. Shore bird records at the Lonoke, Ark., fish hatchery include: Sept. 30—Dowitcher, 4; Stilt Sandpiper, 4; Dec. 16—Least Sandpiper, 108; Wilson's Snipe, 410. At Mud Lake, Oct. 28—Greater Yellowlegs, 2; Lesser Yellowlegs, 1. A late Pectoral Sandpiper was seen on the Penal Farm on Nov. 4. A Bonaparte's Gull was seen Nov. 11 at the Georgia Street sewer.

Nuthatches reported at Hickory Flat, Miss., by Floy Barefield were: Nov. 11—3 Red-breasted, no Brown-headed; Nov. 25—1 Red-breasted, 6 Brown-headed. The Penal Farm continues to furnish records on species of interest. Our first LeConte's Sparrow there was seen Dec. 16. Western Meadowlarks returned for their third winter: at least 4 on Nov. 22; 2 on Dec. 1 and 1 on Dec. 16. Lapland Longspurs noted there: Nov. 4—1, and from 135 on Nov. 22 to 204 on Dec. 16. American Pipits on the Lakeview Levee were 35 on Nov. 18 and 150 a week later (R. D. S.).—BEN B. COFFEY, Memphis, Tenn.

FALL MIGRATION DATES FROM KINGSTON, TENN. — The following dates of first arrival in the fall of 1951 in the vicinity of Kingston, Tenn., are earlier than the earliest recorded dates, furnished by James T. Tanner, for these birds in nearby Knox County: Loon, Oct. 21; Brown Creeper, Oct. 10; Nashville Warbler, Aug. 30; Magnolia Warbler, Aug. 25; Wilson's Warbler, Aug. 24; Fox Sparrow, Oct. 20; Swamp Sparrow, Oct. 9. At Paint Rock Refuge, between Kingston and Loudon, 12 immature and 12 adult Blue Geese were observed on Nov. 4, 10 on Nov. 10, and none on Nov. 17. One Snow Goose was at the same place on Nov. 4. An American Egret was also on the refuge on Nov. 10, a late date. — MRS. E. M. WEST, c/o TVA, Harriman, Tenn.

FLYING BIRDS DAMAGE AIRPLANES—Recently a C-47 plane returning to Sewart Air Force Base near Nashville from Ft. Campbell, Ky., had a strange but by no means unique accident. Two officers were in the cockpit, an instructor pilot and his companion who had been flying by instruments only, an operation during which the pilot sits under a plexiglass hood. While circling the base preparatory to landing, the instructor saw a Vulture approaching on a course which threatened collision. Warning the pilot and at the same time tilting the nose of the plane down, he vainly attempted to avoid the bird, which crashed into the right windshield. Only the plexiglass shield, which still remained in place, saved the pilot from possible serious injury when the impact smashed the windshield and showered glass throughout the cockpit. The bird's remains were dislodged and the plane landed safely. It should be noted that the windshields of aircraft are made of very strong glass but the impact of even a medium sized bird, when encountered at flying speed, is far greater than is generally realized. Photographs of the remains of the vulture and of the damaged plane were temporarily loaned from the Air Force and shown by the writer at a recent T. O. S. meeting.

Inquiries into the above incident revealed the occurrence of another one involving far more serious consequences. This mishap occurred at Pope A. F. B. in North Carolina and to a C-82 Troop Carrying aircraft. The C-82 is equipped with a large airscoop near each of it's two engines. Shortly after takeoff, the plane loaded with paratroopers flew into a large flock of Starlings when only 400 feet in the air. Both airscoops became blocked with birds and both engines quit. All but one of the parachutists were able to jump, in spite of the low altitude. The aircraft crash landed, caught on fire and two of the crewmen were killed, the others miraculously escaping injury.—KENNETH A. LABAND, Sewart Air Force Base, Smyrna, Tenn.

BOOK REVIEWS

STALKING BIRDS WITH COLOR CAMERA, by Arthur A. Allen. 328 p. 1951. National Geographic Society, Washington, D. C. $7.50.

Prof. Arthur A. Allen of Cornell University, the author of this book, is widely known as an ornithologist and photographer of birds. During the last several years most of his illustrated popular writing has been published in the "National Geographic Magazine". This book is largely composed of the material that has appeared in the "Geographic", with some new plates and writing added, and this has made possible the production of a book so profusely and colorfully illustrated at its price.

There are 331 natural color photographs of 266 species of birds, plus about 100 black and white illustrations. The greatest charm and value of the book lies in these pictures. Many of them are superb portraits and reveal details of the appearances and attitudes of birds in a wonderful way. I find myself returning to look at some of them again and again. A very few are of the rare kind of picture that is particularly appealing: scenes, landscapes or seascapes, of which birds are an integral part. There is a wide spread in the quality and attractiveness of the photographs, but the majority are good which is an achievement considering the large number that are here. Two chapters contain illustrations of birds made by high speed photography and reveal them "frozen in flight"; one of these is by H. E. Edgerton and others, the only chapter not by Arthur Allen, and contains pictures of hummingbirds in flight.

The book ranges from Labrador to Florida, from Alaska to Mexico, and from loons to sparrows. Some of the chapters are descriptions in simple language of the habits and characteristics of birds,the kind of writing by which Dr. Allen has stimulated the interest in birds of so many people. Other chapters are accounts of searching for birds and the trials and triumphs of photographing them. The most exciting of these is the account of discovering for the first time the nesting grounds and nest of the Bristle-thighed Curlew.—JAMES T. TANNER

THE HISTORY OF AMERICAN ORNITHOLOGY BEFORE AUDUBON, by Elsa Guerdrum Allen. Trans. of the American Philosophical Soc., vol. 41, part 3. 206 p. 1951. American Philosophical Society, Independence Square, Philadelphia 6, Pa. $2.00.

This book is more than its title indicates, for it starts with the very beginnings of ornithology as a study and a science and then it presents considerable biographical detail about all ornithologists and natural historians of birds of this country up to the time of Alexander Wilson. The author, who is the wife of Arthur A. Allen, did much original research on her subject, traveling to libraries in this country and Europe, and has unearthed history buried in forgotten books and letters. One of her accomplishments in writing this book has been to portray the lives and deeds of several little known and even previously unknown American naturalists.

After a summary of the early history of ornithology in our civilization, the book covers the period when American birds were first described in the notes of the first explorers and colonists. Then comes the founder ot American ornithology, Mark Catesby, who travelled extensively in the "Carolinas" to make natural history observations. His biography is followed by accounts of a number of lesser lights. The text of the book concludes with an interesting and sympathetic biography of Alexander Wilson, the first man to publish a series of books on the birds of America.

The book is enlivened by numerous portraits (most of them apparently very unflattering) of these early naturalists and by several reproductions of paintings and drawings by the many of them that were artists. There is a tremendous bibliography, of about 800 titles, and an index. The American Philosophical Society is to be complimented for publishing this work. —JAMES T. TANNER.

HOW TO CHOOSE AND USE FIELD-GLASSES, by E. M. Nicholson. 8 pp., Field Guide No. 2, British Trust for Ornithology, 91 Banbury Road, Oxford, England. 9d.

It is somewhat surprising to learn how many bird-watchers are ignorant of the necessary information which would enable them to secure a satisfactory pair of glasses for field study. For those who are dissatisfied with their present glasses, or for those who contemplate a purchase, the paper in review will be quite useful. Mr. Nicholson briefly sets forth the qualities of a good glass for bird-watching, e.g., optical excellence, magnification, light-gathering power, frame design, focus adjustment, weight, and price. Special purpose binoculars and telescopes are very briefly treated, and the use and care of optical equipment rounds out the report. For general bird-watching, Nicholson recommends the finest optical quality glass of 6 to 9 power, light weight frame, central focus adjustment, and coated lenses. Several British and German glasses are mentioned, but none are discussed. No American equipment is listed.—ANDREW J. MEYERRIECKS.

THE INSIDE STORY OF BINOCULARS, by Robert J. and Elsa Reichert. 12 pp., Mirakel Repair Company, Mount Vernon, New York, 25 cents.
KNOW YOUR BINOCULARS, by Robert J. and Elsa Reichert, reprinted from the Jan.-Feb. and Mar.-Apr., 1951, issues of "Audubon Magazine". Obtainable from Mirakel Repair Company, Mount Vernon, New York, 1-19 copies at 10 cents each, 20 copies for $1.00.

These two papers offer a very fine, detailed treatment of optics and of binocular choice and care for both the beginner and the expert. The first paper is especially thorough in its definitions of such optical terms as field of view, exit pupil diameter, and relative brightness. In addition, the paper discusses in some detail the qualities of a good glass for field study, various methods of checking optical and mechanical alignment, and lens coating. The last third of the paper consists of a fine review of many domestic and foreign makes and models of binoculars.

The second paper by the Reicherts is a shorter treatment of the essential points of the first. Anyone interested in securing the right pair of binoculars, and what birder doesn't want the best possible look at an elusive species, will be amply repaid by the purchase of these papers.—ANDREW. J. MEYERRIECKS.

THE MIGRANT

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The simple truth about birds is interesting enough;
it is not necessary to go beyond it.

DISTRIBUTION AND POPULATIONS OF SUMMER BIRDS IN SOUTHWESTERN GEORGIA, by Robert A. Norris. 67 p. 1951. The University of Georgia Press, Athens, Ga. $1.25.

Description of the topography and the vegetation of the region, an annotated list of the summer birds, results of three breeding bird censuses, and the conclusions that can be drawn from these data make up this report. The area is not particularly interesting or exciting to an ornithologist because it is not unique nor especially attractive to a large number of birds, but just because it is not unique, just because it is fairly typical of a large part of the southeastern States, the information this book contains is valuable. The annotated list describes the relative abundance, local habitats, and subspecific identifications of 96 species. The breeding bird census data report the results of a census in each of three major habitats. The combination in this one report of these two different methods of obtaining and presenting the information on the birds of a region makes this an interesting work.

About eight species of birds are reported as reaching their southern limit of range in this region. These extend farther southward here than they do in other regions of the southeastern States, and the author believes that these range extensions are influenced by the proximity of the Piedmont and the presence of rivers coursing north to south. These conclusions are supported by the locations of breeding records and by comparisons of breeding bird censuses in this region, the Piedmont, and the Coastal Plain.—JAMES T. TANNER

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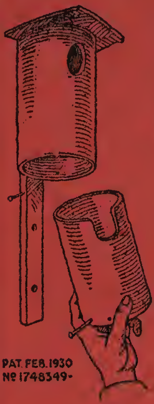

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A QUARTERLY JOURNAL
DEVOTED TO TENNESSEE BIRDS

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VOL. 23 MARCH, 1952 No. 1

SOME BIRDS OF THE YAZOO-MISSISSIPPI DELTA

By MERRITT G. VAIDEN

This paper is the seventh in a series on the birds of this region published in THE MIGRANT (Sept. 1939; June 1940; Sept. 1940; Sept. 1943; Sept.1947; Dec. 1948). The records and specimens described come principally from Bolivar County, Mississippi.

Doctor Alexander Wetmore, Smithsonian Institution, Washington, D. C., has continued to identify the subspecies of specimens for me; his help is appreciated. All specimens are in my private collection here at Rosedale Miss.

HORNED GREBE **(Colymbus auritus)**.—I have collected two of these birds in winter plumage; one on November 27, 1949, and the other on December 22, 1951. Both birds are males. These birds are not plentiful winter visitants here and are found usually feeding near shore in the Mississippi River.

PIED-BILLED GREBE **(Podilymbus podiceps)**. — Everyone knows this interesting little bird as the "di-dipper". It is a fairly common breeding bird here in suitable localities where the nest can be properly hidden. The little chicks are beautiful and interesting.

WHITE PELICAN **(Pelecanus erythrorhynchos)**.—Any bird that is compelled to carry a scientific name as burdensome as this should be as large as the White Pelican. This bird is found in migration along the river sandbars and occasionally on the mud flats of a few lakes. I have a female taken November 1, 1950. Few summers occur without finding this great bird in flocks of fifteen to many hundreds resting and feeding as they pass through. Lowery, et al, failed to list this bird as a regular west to east migrant in a paper on the subject, **(Wilson Bulletin**, 1944, 56: 152-160).

LOUISIANA HERON **(Hydranassa tricolor ruficollis)**.—An immature was collected July 22, 1951, at Legion Lake and three were seen on August 11, 1951, and an immature collected. No adult was seen during the summer or fall of this year. This bird is a rare wanderer to this area.

LITTLE BLUE HERON **(Florida caerulea)**.—Guy Thompson, Jr., located a small breeding colony in this county on May 17, 1951, consisting of approximately eighty birds; also nesting in this colony were a few Water-turkeys,**(Anhinga anhinga)**, and Great Blue Herons, **(Ardea herodias)**.

YELLOW-CROWNED NIGHT HERON**(Nyctanassa violacea)**.—A small heronry was located in a cypress swamp in April, 1949. We counted fourteen birds. Five active nests were examined in June, all containing young.

AMERICAN BITTERN **(Botaurus lentiginosus)**—On June 10, 1951, we collected a male in full adult plumage at a borrow-pit two miles north of Rosedale. We found no indication of nesting although the testes were fully developed.

WOOD IBIS **(Mycteria americana)**—This interesting bird wanders through our area annually in early summer and remains until the small fish have been consumed from the drying-up borrow-pits. Our earliest date of observation is by Guy Thompson, Jr., on June 29, 1951, and the latest date of observation is December 3, 1951. Both dates occuring in 1951 is interesting, since observations began in the summer of 1919.

WHITE IBIS **(Guara alba)**.—I saw, while accompanied by W. A. Welshans, Jr., the first immature White Ibis I have recorded in this area at Legion Lake on July 19, 1951. The White Ibis is a rare bird here in any plumage.

BLACK DUCK **(Anas rubripes)**.—During the hunting season of 1946 I started checking certain hunters' game bags and found this species fairly common in the majority of the bags. Since that time I have continued to check the kill of certain sportsmen and have found only one bird of this species, a male taken on December 18, 1950, at Lake Concordia. What has become of the Black Duck?

BUFFLE-HEAD DUCK **(Glaucionetta albeola)**—The "Butter-ball" as this duck is sometimes called, is usually during winter confused with the more plentiful Ruddy Duck. The Buffle-head is never plentiful on our lakes or borrow-pits, but during the winter of 1950-1951, conditions for feeding must have been satisfactory for this species was much more common than the Ruddy Duck. It is a very pretty duck in full spring dress.

OLD SQUAW DUCK **(Clangula hyemalis)**.—An extremely rare duck here for the thirty-three years of my residence. A beautiful male specimen in full winter plumage was taken on February 6, 1950, at Welshans Slough and is my only Bolivar County record. I have seen two specimens taken in Washington County at Lake Ferguson in December 1934 and January 1936.

RED-BREASTED MERGANSER **(Mergus serrator)**.—A female taken April 30, 1949, at Legion Lake, is my second record and first collection. It is not normally found here in this county.

WOODCOCK **(Philohela minor)**.—On February 6, 1950, at sunset, just north of the city limit of Rosedale, it was an amusing and pleasant sound to hear at least twenty-five of these fine game birds "peenting" away as they went to roost in short grass and stubble at the base of the levee. The note of this bird would hardly receive a prize for beauty and quality. During December 1950 and January 1951 these birds were found fairly often in suitable cover.

MEXICAN GROUND DOVE (**Columbigallina passerina pallescens**).—When I first reported finding the species in the Yazoo-Mississippi Delta fairly plentifully distributed over the area, I gave in error the form as **passerina**, the Eastern Ground Dove. Please see the "Oologist" for January, 1939, page 8 for this first report. Specimens, however, identified by Dr. Alexander Wetmore have proved to be the western form, **pallescens.** Birds identified by Dr. Wetmore were secured on February 7, 1937, a male; December 19, 1947, a female; and December 30, 1950, a male. All three specimens were taken in Bolivar County. Again we have here west to east migration. I have additional sight records.

BLACK-BILLED CUCKOO (**Coccyzus erythroptalmus**).—This species was common in April, May, and June, 1945. The week beginning May 25, 1951, this bird was again fairly common around the willows at Legion Lake. A few were found feeding among the pecans at the lake area and other localities. This bird is erratic in migration, probably depending on the tent caterpillar for its supply of food.

WHIP-POOR-WILL (**Caprimulgus vociferus**).—This bird had not to my knowledge been heard, seen, or collected in the Yazoo-Mississippi Delta until Carl Black collected an immature male on October 25, 1951, from a sandbar one-half mile west of Rosedale.

HOWELL'S NIGHTHAWK (**Chordeiles minor howelli**).—I have two specimens in my collection identified by Dr. Wetmore as this form. These birds were obtained on September 7, 1947, and October 2, 1949, from flocks that were flying rather high and in a direct northwest to southeast line. The two flocks seemed in a hurry and the usual migratory-feeding flight of this bird was not observed.

OLIVE-SIDED FLYCATCHER (**Nuttallornis borealis**).—On May 8, 1948, eight of these birds were located at Black's Cypress Brake perched high, probably 100 to 125 feet, on the spires of partly dead cypress trees. I failed to collect a specimen although five shots were made with a large bore gun. On May 18, 1949, at the same locality a fine male specimen was taken from a dead limb of a willow some sixty feet up. Two others were present. The cypress and willow trees are gone by reason of lumbering.

VERMILION FLYCATCHER (**Pyrocephalus rubinus mexicanus**).—On October 1, 1950, at Legion Lake, I collected a beautiful male of this species. There is no other record of this bird having been secured in Mississippi north of the three Gulf coast counties. This, too, is another west to east migration or wandering.

PRAIRIE HORNED LARK (**Eremophila alpestris praticola**). — This seems to be the most common form to be found here. I have eight identified specimens and seven have proved to be this race. The Horned Lark is fairly common or plentiful in some winters.

EASTERN VEERY THRUSH (**Hylocichla fuscescens fuscescens**). A bird taken September 20, 1947, at Old River Lake was identified as this form by Dr. Wetmore. The Veery is a very rare migrant, this being my second record.

PHILADELPHIA VIREO (**Vireo philadelphicus**). This is normally a rare visitor in spring or fall. However, beginning with May 5 and ending on May 16, 1951, we recorded daily three to nine birds feeding in willows and small cottonwood trees at Legion Lake. Three of the birds were taken.

BLUE-WINGED WARBLER (**Vermivora pinus**).—On August 16, 1948, almost one year later than my first recorded observation of this species, another male was taken in fair plumage from a willow at Old River Lake.

NASHVILLE WARBLER (**Vermivora ruficapilla**). Three of these birds were seen feeding very high in cottonwoods at Legion Lake on May 8, 1951. One was collected, a male in nice plumage. It is a rare spring and fall migrant.

RED-WINGED BLACKBIRDS (**Agelaius phoeniceus**). Beginning at about 4:00 p.m. to 5:30 p.m. there come in to roost about one million "blackbirds" at a willow thicket of approximately fifteen acres lying between Ray's Lake and the Mississippi River. The roosting area is about two miles southeast of Rosedale. The flocks that pour over have been estimated by many observers as much higher than the figure given here. Counting the birds that have been destroyed by target hunters and collected by the writer, I believe that the following percentages give the correct ratio of "blackbirds" in the total flock: Red-winged Blackbird, 42%; Cowbird, 27%; Starling, 20%; and Grackles, 11%.

BREWER'S BLACKBIRD (**Euphagus cyanocephalus**). Mr. Albert F. Ganier, Nashville, Tennessee, collected and donated a specimen of this bird to me that was taken at Grace, Mississippi, at the south side of Washington County. The bird, a female, was taken on November 18, 1951. Washington borders Bolivar County on the south side. I have three sight records for Bolivar County but no collection. It is not at all a common migrant here.

EASTERN COWBIRD (**Molothrus ater**). At a bird bath in my yard I noticed a Red-eyed Vireo feeding a Cowbird twice the size of its foster-mother. On August 16, 1944, one month later, I noticed a Maryland Yellowthroat feeding an immature Cowbird at least three times larger than its foster-mother. I collected both Cowbirds and had a feeling that in both instances the "mothers" felt relieved of a great burden. The immature Cowbirds were males.

ROSEDALE, BOLIVAR COUNTY, MISSISSIPPI,
DECEMBER 15, 1951.

SUMMER BIRDS OF CAMP MACK MORRIS, BENTON COUNTY, TENNESSEE

By THOMAS WALKER, JR.

From about June 20 to July 31 in the years 1946-1950, the author served as a nature-study counsellor at Camp Mack Morris, Benton Co., Tennessee. The camp is located about eight miles southeast of Camden on an arm of Kentucky Lake known as Birdsong Branch. The camp includes about 500 acres, mostly of rather poor oak-hickory forest. The land in the valleys supports heavier forest, and there is approximately 100 acres of land once cropped now reverting to woodland.

The following report is compiled from notes taken on bird hikes made from 4:30-7:30 a.m., five mornings a week, during the entire stay at camp. Four of the field trips each week included oak-hickory forest, shrub-filled fields, more-recently abandoned cropland, a garden and orchard of an abandoned farm house, and the weedy shore area of Birdsong Branch. One trip was made each week by boat to the marshy area at the head of Birdsong Branch. Birds not seen in these areas, even though common in the towns and on the farms near by, are not listed. A total of 80 species was recorded.

The following 28 species were either seen or heard almost every day: Great Blue Heron, American Egret, Bob-white, Yellow-billed Cuckoo, Chuck-Will's-Widow, Chimney Swift, Ruby-throated Hummingbird, Pileated Woodpecker, Red-bellied Woodpecker, Downy Woodpecker, Crested Flycatcher, Wood Pewee, Blue Jay, Crow, Carolina Chickadee, Tufted Titmouse, Carolina Wren, Blue-gray Gnatcatcher, White-eyed Vireo, Red-eyed Vireo, Yellow throat, Yellow-breasted Chat, Red-wing, Summer Tanager, Cardinal, Indigo Bunting, Towhee, Field Sparrow.

These 23 species were seen or heard frequently but not consistently: Green Heron, Wood Duck, Killdeer, Turkey Vulture, Screech Owl, Barred Owl, Whip-Poor-Will, Nighthawk, Belted Kingfisher, Hairy Woodpecker, Eastern Kingbird, Rough-winged Swallow, White-breasted Nuthatch, Mocking-bird, Brown Thrasher, Wood Thrush, Eastern Blue-bird, Yellow-throated Vireo, Black and White Warbler, Prairie Warbler, Meadowlark, Purple Grackle, Common Goldfinch.

The remaining 29 species deserve special note:

PIED-BILLED GREBE. One record of one on July 16, 1948, in Badger Creek.

DOUBLE-CRESTED CORMORANT. One record of one on July 22, 1949, over Birdsong Branch.

LITTLE BLUE HERON. Seen occasionally in Birdsong Marsh in flocks of up to 37 individuals after July 1.

COOPER'S HAWK. Three records of one: July 2, 1947, July 19, 1949, and June 19, 1950.

RED-TAILED HAWK. Two records of one: June 28 and July 11, 1950, both records from Birdsong Marsh.

RED-SHOULDERED HAWK. Nine records of one or two birds each.

SPARROW HAWK. One pair seen occasionally in 1946 and 1947.

SPOTTED SANDPIPER. One record of one on Birdsong, June 21, 1950.

LEAST TERN. Two records of one on Birdsong: July 13, 1948 and June 21, 1950.

BLACK TERN. Two records of one on Birdsong: June 21 and July 17, 1950.

MOURNING DOVE. Seen fairly often in 1948, 1949, and 1950. One record of seven in 1946 and no record in 1947.

BLACK VULTURE. Three records in three years, the largest number seen at one time being five.

FLICKER. One or two seen occasionally in 1946.

BARN SWALLOW. Two records in 1950, one of three birds.

PURPLE MARTIN. One record in 1946, 1947, and 1948; as many as three recorded at once.

BEWICK'S WREN. Seen often in 1949 and 1950, a pair successfully nesting in the author's tent in 1949.

CATBIRD. One record of one on July 3, 1950.

ROBIN. Two records in 1948, one in 1950, two individuals the largest number recorded.

LOGGERHEAD SHRIKE. Seen rarely in 1946 and 1947.

PROTHONOTARY WARBLER. Seen occasionally on Birdsong.

PARULA WARBLER. One record of two on July 9, 1948.

YELLOW WARBLER. One record of one on July 11, 1950.

YELLOW-THROATED WARBLER. One record of two on June 21, 1950.

KENTUCKY WARBLER. Seen occasionally in 1948 and 1950. A nesting pair was observed in 1948.

HOODED WARBLER. Seen occasionally in 1947.

ORCHARD ORIOLE. Seen occasionally in 1950.

COWBIRD. Seen often in 1949 and 1950.

BACHMAN'S SPARROW. One pair seen regularly in 1948 and 1949.

CHIPPING SPARROW. One pair seen often in 1946 and 1950.

ROUTE 3, DYERSBURG, TENNESSEE.

THE ROUND TABLE

A BLACK VULTURE ROOST — On Dec. 12, 1951, the writer visited the largest roost of Black Vultures **(Coragyps atratus)** he has ever observed in Tennessee, there being approximately 450 birds present. The site was at Indian Lake in the Cumberland river bottoms 15 miles north-east of Nashville. The vultures were roosting in large trees of a woods which, except in summer, stood in backwater from the lake. The water afforded protection in deterring intrusion from nocturnal huntsmen. I arrived at the site about half an hour before sundown and remained nearly an hour. Most of the birds were already in but late comers still came in small flocks and settled in four or five favored trees within a diameter of 200 feet. The temperature was at the freezing point with a light north wind blowing and, as though to keep warm, the birds would frequently arise and fly about flapping vigorously. When they had finally settled, I made two counts, using binoculars from the opposite shore 800 feet away, and arrived at the figure mentioned. There were a few Turkey Vultures with the Blacks but not more than 6 of them. I first observed this roost on the morning of Oct 27, and counted 55 vultures in it at mid-day. Light rain fell during most of that day and these birds had elected to remain at the roost. A local resident told me that this "buzzard" roost had been in use for many years. The country all about is a rich, stock raising section and, with the present upward trend of stock production, these vultures no doubt find a sufficiency of dead animals.—ALBERT F. GANIER, Nashville 12, Tenn.

ADDITIONAL RECORDS OF THE SANDHILL CRANE IN EAST TENNESSEE.—Ijams **(Migrant, 1942, 13; 56)** lists four recent records for this species in Tennessee. Two additional records are as follows: Dr. J. Gordon Carlson, Head of the Zoology and Entomology Dept., University of Tennessee, reported four Sandhill Cranes calling as they flew over the Oak Ridge National Laboratory, Anderson Co., on February 25, 1950. The writer heard and saw four Sandhill Cranes as they circled briefly overhead near Sequoia Point, Norris Lake, in Anderson Co., on October 21, 1951.—J. C. HOWELL, Zoology and Entomology Dept., University of Tennessee, Knoxville.

AN UNUSUAL WINTER VISITOR.—On January 25 I was told that a Miss Ada Maxwell in Island Home reported that a strange bird had been coming to her feeder since December 7. Except for the white tail, the description suggested a Rose-breasted Grosbeak.

The next day, a rainy Saturday, Mrs. Robert Dunbar and I went over about noon, and were invited to watch, from the breakfast room window, the feeding tray just outside. Miss Maxwell described the bird as being quite unafraid of anyone at the window, but aggressive in driving off other birds; and said it ate sunflower seeds, corn, suet and peanut butter. Three hours brought only common birds. We left, returning about 4:40 p.m., thinking that food was usually put out about this time.

A male Rose-breasted Grosbeak was at the tray. Guests arriving at the front door sent it up to the branch of a nearby tree where we observed it with binoculars from every angle. The heavy white bill was unmistakable. The head was black, except for a light eye stripe, wings very black with conspicuous white markings, the red breast triangle was clear, but breast and underparts very dingy, and the back flecked with brown. The tail appeared to be all white but almost transparent suggesting that some tail feathers were missing. Because of the black head and black and white wings the bird must be an adult in winter plumage.—MRS. R. A. MONROE, Tugaloo Drive, Knoxville, Tenn.

RANDOM NOTES FROM THE MEMPHIS AREA.—On November 17, 1951, a group from Memphis consisting of the writer and wife, Richmond Gill, George Peyton, Johnny and Ralph Johnson, and George Ragsdale journeyed to the rice fields near Lonoke, Arkansas, to observe the large concentrations of ducks as well as the other marsh birds of the area. We were surprised to see a Golden Eagle sailing over Nixon's Ponds where thousands of ducks were gathered. The bird was observed at close range in good light for several minutes by the whole group. The ringed tail and white spots at the base of the primaries showed it to be an immature bird. Also of note at Nixon's were 12 American Bitterns. This is our second record of the Golden Eagle for Arkansas, the other being March 16, 1947, when Mrs. Barbig and I observed an adult at Porter Lake, Ark., about 25 miles south of Memphis.

We wish also to take this opportunity to report a Lawrence's Warbler seen at 15 feet for several minutes at Overton Park, Memphis, on April 14, 1951, by Mrs. Barbig and myself. This was a typical specimen and conformed to Peterson's illustration in every detail except that the white wing bars had a slight yellowish cast. Our attention was first attracted to it by its song which resembled the Blue-winged Warbler and Golden-winged, but did not sound exactly like either.

On December 31, 1951, in Mosquito Bayou, between Horseshoe and Porter Lakes, Ark., Fred Griffin, Mrs. Barbig and I saw thirty-two American Egrets, a large number for this date.—HOWARD T. BARBIG, Route 10, Box 424, Memphis, Tenn.

BIRDS AT "UP YONDAH".—"Birds and all wildlife are necessary to healthy land and contribute to our happiness and standard of living." This sentence appears in Peterson's "Guide", and was the basis for our dream about "Up Yondah". Our property covers about five acres atop Snow Hill, approximately five miles east of Smithville. It occupies a narrow ridge running due east and west between two deep valleys, and is covered with second growth hickory, several types of oaks, maples, poplar, wild cherry, dogwood, gum, and an abundance of mature and scrub black locust. There is a dense undergrowth of brier with laurel and blueberries interspersed. We are deep enough in the woods so that no civilized territory can encroach upon this sanctuary. We opened our residence officially on Labor Day, 1951, and had an opportunity to see many warblers and thrushes during the fall migration.

The following is a list of the regular visitors to our feeding area: Cardinal, 16-18; Junco, 25; White-throated Sparrow, 7-8; Fox Sparrow, 1; Towhee, 2; Titmouse, 4; Downy Woodpecker, a pair; Red-bellied Woodpecker, a pair; Carolina Wren, 2; Pileated Woodpecker, 2; Mourning Dove, 4. Infrequent visitors are a Hairy Woodpecker and approximately 25 Purple Finches, and coming close to the feeding area, but not into it, are 5 to 15 Flickers, 10 to 15 Doves, 5 to 8 Bluebirds, and a Brown Creeper.

There are three large stands of sumac just over the hill from our house and we can sit in the living-room window and watch the Pileated Woodpecker clinging awkwardly to a sumac head as he eats the seeds. We have not been able to tell whether they eat the suet which is placed on a large tree above the feeding area, but we have seen them on the tree and on the ground nearby.

We shall need another full year before we can report on all the bird visitors and on a complete census of nests and territories. Any information offered by members of the T.O.S. in the establishment of a sanctuary will be gratefully received, and visits from members will be welcomed at all times.—NELL L. AND MILLARD C. KENT, Route 3, Liberty, Tennessee.

THE SEASON

MEMPHIS AREA—Horned Grebes, 3 on Dec. 23 (Kent), were a first for the Memphis Count and the second record for our area in Tennessee, altho it is not uncommon at Moon Lake, Miss., and Horseshoe Lake, Ark. At the latter, 8 were seen Feb. 10 (R. D. Smith, Jr.) and 13 on Feb. 24 (T. O. S.), Christmas Counts for the first time recorded straggler American Egrets with one at Reelfoot Lake (Walker and White, 1951:65) on Dec. 27, one near Dundee, Miss., (Moon Lake Count) on Dec. 30, and one in a Lonoke, Ark., rice field with 30 Great Blue Herons, Dec 24. Early return of the species was indicated by a record of 51 at Horseshoe Lake, Ark., on Feb. 24 (T. O. S.). None were seen, however, at Lonoke on Jan. 27, Feb. 17 or 24. A series of winter trips to Lonoke indicated that its large fish hatchery and the rice fields attract wintering marsh and shorebirds. An adult Yellow-crowned Night Heron and two American Bitterns were at the hatchery Dec. 24 while a Bittern was flushed from a roadside ditch on Jan. 27. Three King Rails were recorded on the first date and three others on the second. The hatchery proved a big attraction for Wilson's Snipe, a total count of about 300. A flock of up to 103 Least Sandpipers were noted on visits from Dec. 16 to Feb. 24. Despite this, Lonoke failed to furnish early dates for our first shorebird transients. R. D. Smith, Jr., found Lesser Yellowlegs north of Horseshoe Lake: 3 on Feb. 10 and 24, and 5 on Feb. 17 with one Greater Yellowlegs. Nearer Memphis, at Hurlburt across the river, one was seen Feb. 17 and four on Mar. 2. A Pectoral Sandpiper was seen Mar. 2 at Hurlburt and 22 at Lakeview, Miss., on Mar. 15. No Golden Plover were seen on Mar. 9 at the Penal Farm or north of town, but three were at the Farm on Mar. 15 (McPherson) and 59 on the 16th, while north of Lake Cormorant, Miss., 98 were found late on the 15th.

The Robert Dunbars of Oak Ridge reported an Old Squaw Duck on Mammoth Spring, Ark., Dec. 29. The high count of 68 Turkey Vultures (sometimes missed by several parties) on Dec. 23 was the result of a concentration of 60 at a large area of hog pens at the Penal Farm. Charles McPherson reported 42 were perched and some others were feeding among grapefruit rinds and other garbage in the pens. On some Memphis counts we have failed to record the Black Vulture while at Moon Lake the count will be high, such as 261 on Dec. 30. A Short-eared Owl, Jan. 27, six miles northeast of Lonoke, Ark., was the first for this area apparently since Mar. 25, 1941, at Memphis (Migrant, 1941:35).

The first credible but unverified report of the Purple Martin was on Feb. 20, by an invalided Martin fan at his box. Other firsts at boxes were Feb. 26, 28, Mar. 2 and 12; Oliver Irwin reported a male present at one box Feb. 26 and 27 and the pair on Mar. 1. Four Long-billed Marsh Wrens were at the Lonoke, Ark., fish hatchery Dec. 24, and one was found in a roadside ditch two miles west of there on Jan. 27. R. Demett Smith, Jr., recorded Blue-headed Vireo on the Memphis Count (2d record) Dec. 23, and another on the Moon Lake Count, Dec. 30. Brewer's Blackbird was recorded at the Penal Farm from Nov. 10 (one) to Jan. 20 with up to over 100 on each of three December dates; it was also noticed at three other localities. We failed to find the Western Meadowlark on the Count or on the following week-end but otherwise at least one has been heard regularly at the Penal Farm with six on Feb. 3 (RDS). One was heard at Lonoke, Ark., Jan. 27, two at Moon Lake, Miss., Dec. 30, and two north of Lake Cormorant, Miss., Mar. 15. A very unusual record on the Lonoke Count, Dec. 24, was of 15 Smith's Longspurs; when first flushed they were thought to be Vesper Sparrows but thru 7x50s were seen to be Longspurs. They were with Savannah Sparrows and Lapland Longspurs (the white of the latter is practically never apparent, at least in our experience with many flocks). They were not found again Jan. 20 or 27. A Grasshopper Sparrow, Mar. 2, at Hurlburt, Ark., is early while a single Vesper Sparrow was seen Mar. 9 at Field 21, Woodstock, north of town.—BEN B. COFFEY. JR.

NASHVILLE—The Winter Season in the Middle Tennessee area has been generally mild with no snow since the first week in November and only short irregular intervals of temperature below freezing. Many damp days with overcast skies, slight wind, and temperature in the low 40's have probably had more effect on field observations than on the birds themselves.

A few records from the fall are worthy of note. A White-rumped Sandpiper Oct. 1, seen by Mrs. Laskey and Mrs. Goodpasture, establishes the first record for the species at Radnor Lake, as far as I can determine. A record for Montgomery Co. was made by Pickering, Sept. 24, 1936 (Migrant, 1936, 7:100). Mrs. Goodpasture's record of an Orange-crowned Warbler, Oct. 13, added to those of Monk, April 22 (Migrant, 1952, 22:47) and Ganier, Dec. 2 (Migrant. 1951, 22:70) brings the 1951 total to three for the area. Previous records are: (1) Clebsch, Oct. 16, 1937 (Migrant, 1937, 8:76); (2)

an unpublished record by Stevenson, April, 1941; and (3) a banding record by Mrs. Laskey, Oct. 2, 1949. Mr. Ganier and Miss Riggs report a Pine Siskin feeding on teasel with Goldfinches in Bell's Bend, Dec. 2. Red-breasted Nuthatches are rarely reported from this area, but ten sight records of a single bird are reported from Basin Spring Woods from Dec. 22 to Mar. 14. (KAG). H. C. Monk saw 50 Canada Geese in flight northwestward over Nashville at noon on Jan. 15. Mrs. Laskey heard another flight at 1:20 A. M., Jan. 25: she, along with others, reported flights over the city on Feb. 6.

An influx of Robins and Starlings into hackberry bearing sections of the city was noticeable from early January to the end of the month. As many as 500 birds came each day between Jan. 20 and 24 to one area and fed all day (HCM, KAG). During this interval an albino Robin was twice reported: once at a feeding shelf by Mrs. Moore and Mrs. Barnes and later daily for about a week by Mrs. Tinsley on Fairfax. Detailed description of the bird at the latter location by Dr. Mayfield indicated an instance of partial albinism.

Miss Mary Moore reported a large Robin-Blackbird roost on the Cumberland River in Buena Vista Bottoms at the edge of the city which increased in size from Jan. 28 to Feb. 11. Mr. Watson, a watchman at Cumberland Air Field adjacent to the three or four acres of sapling growth in the marshy bottom, said the roost had been building up since mid-November. It was judged to be at its height about the middle of February when Dr. Mayfield estimated its size at about 500,000 birds. Starlings, Robins, Redwings, Cowbirds, Grackles, and Rusty Blackbirds largely composed the flock.

On Jan. 21 Mrs. Laskey had her attention called to a wounded Short-eared Owl in northwest Nashville. It was restored to good health and flight, banded and released. She also banded on Dec. 18 a Loon which had been caught a few days before when it attempted to settle on the Berry Field runway. The Loon was released on Radnor Lake.

Phoebes have been irregularly recorded locally throughout the winter. One was first heard to sing its phee-be song Feb. 21 (ARL). Bewick's Wrens have been less frequently reported but there are December, January, and February records. Mrs. Bell had a wintering flock of about 10 Doves at her feeding station some of which began to coo about Jan. 1. Dr. Hawkins had a Brown Thrasher in his yard Jan. 2. Dan Schreiber reported a Thrasher on Love's Hill Feb. 23. Mrs. Laskey had her first Chipping Sparrow March 9, and on the same day two banded Cowbirds returned to her banding station. These were the first returns of the season.

Two winter-absent species have returned to their nesting territories. Four or five Black-crowned Night Herons were found at their heronry by Mr. Ganier and a field party on March 8. A Louisiana Water-thrush was singing on Basin Spring Branch March 14 (KAG).

Mrs. Laskey reports a Bluebird nest with one egg on March 13, and an additional 7 nests practically complete on the same day.

And thus we see the overlapping in time and space of various avian physiological cycles.—KATHERINE A. GOODPASTURE.

KNOXVILLE AND VICINITY.—This winter has been mild with no cold spells and only a little snow that did not stay long. Except for the Evening Grosbeaks described below and a wintering Rose-breasted Grosbeak recorded in "The Round Table", there have been few unusual observations of birds. Instead there seems to have been a scarcity of many species that usually winter here, altho some of this scarcity may be apparent rather than real because there have not been as many observers in the field as in most years past.

To begin with the scarce species, there have been reported this winter fewer than usual Brown Creepers, Hermit Thrushes, and Golden-crowned Kinglets, and no Winter Wrens in the Knoxville area. One Red-breasted Nuthatch spent the winter in the woods near my home and was still there on March 20. At least one Brown Thrasher wintered near Knoxville, reported by William M. Johnson.

Records of Coot and Gadwall at Concord on Feb. 17 are not unexpected, but they are the first records of these species in Knox County in February for at least several years. A Ring-necked Duck has spent the winter on the little lake in Fountain City where last year a Lesser Scaup stayed for eight months. An uncommon record for Knox County was made on Feb. 17 by Brockway Crouch who heard two Great Horned Owls hooting near his home. Arthur Stupka reported that Ruddy Ducks spent the winter on Laurel Lake, near Kinzel Springs, Blount County.

The few spring migrants that have appeared have arrived just about on average dates. The first Purple Martins reported in Knoxville came on March 13. Arthur Stupka reported the following arrival dates for birds in and around Gatlinburg: Chipping Sparrow, March 13; Purple Martin and Rusty Blackbird, March 15; Mountain Blue-headed Vireo, March 16.

The first records of Evening Grosbeaks in the vicinity of the Great Smoky Mountains National Park were reported in the last December MIGRANT (22:69). Since the first of this year Grosbeaks have been seen on at least ten different occasions at the National Park Headuarters, in Gatlinburg, or in Sevierville. The largest flock seen was reported by Joe Manley of Gatlinburg who saw an estimated 150 to 200 birds on February 7 at Sevierville; some of the Grosbeaks were within 15 feet of his car. The flocks usually reported have numbered between 10 and 20. At the time of this writing the last date on which any were seen was March 18. In the pages of the latest issue of the "Chat" (16: 26-27) are summarized records of this bird from scattered localities in North Carolina and even South Carolina for this winter; it has certainly been an unusual year for Evening Grosbeaks.

Mrs. E. M. West wrote that she saw a partial albino Junco near Kingston on Feb. 4; the bird had a white head, neck, and underparts except for a gray spot on the forehead and gray breast streakings where the lower edge of the "vest" should have been. She also reported seeing an adult Bald Eagle on nine dates from Oct. 29 to Jan. 20.—JAMES T. TANNER.

KINGSPORT.—For the Kingsport Bird Club the past season—the mildest winter in many years—was chiefly notable for the scarcity of a number of our common permanent and winter residents. We observed very few Flickers, Bluebirds, Mourning Doves, Field Sparrows, Myrtle Warblers, Juncos, Pine Siskins, Purple Finches, or Kinglets. In some sections Song Sparrows were scarce; in others very abundant. Most observers are agreed that unusual numbers of White-throated and White-crowned Sparrows wintered in our area. During the last weeks of February and early in March woodpeckers seemed to cover wider feeding territories. Pileated and Red-bellied Woodpeckers, and Brown Creepers, were noted on the edges of residential areas where they are not usually seen.

Two members of the club had opportunity to observe two species closely over a period of weeks. A pair of young Red-shouldered Hawks were watched daily by Mrs. Switzer during November and December over Reedy Creek valley and an adjacent wooded hillside. Mr. Ed Gift observed a Pine Warbler at his feeding station on Feb. 2 and thereafter.

Despite the warm temperatures we did not hear birds singing more frequently or earlier than usual. The White-throated and White-crowned Sparrows sang thru-out December and January. The third week in February they were joined by Mourning Doves and Bluebirds. During clear weather when the moon was full the second week in March, Killdeers were heard calling thru-out the night.

A few returning migrants have been recorded. The first Purple Martins arrived at 5:30 p. m. March 14 at the martin houses of Homer and Herbert DeGroot. Mr. Homer DeGroot says that the Martins usually appear first in the evening. Mr. Herbert DeGroot recorded March 27 as the arrival date in 1951 and March 12 in 1950. The earliest date in the Kingsport Bird Club records is March 5. Another early date is March 11 for a Brown Thrasher seen and heard by the author. Our previous early record is March 25. I was interested to find that Bent lists a record of a Thrasher as far north as Illinois on March 11. I also saw a Blue-headed Vireo on March 12, the same date as I observed this transient in 1950.—ANN HARNEY SWITZER.

ELIZABETHTON—The winter has been comparatively mild as indicated by average temperatures of 41.1, 44.1, and 43.6 degrees F. for the months of December, January, and February respectively. The minimum temperatures for each month were: Dec. 16, 9 deg.; Jan. 30, 17 deg. Feb. 8, 22 deg. The maximum were: Dec. 31, 70 deg.; Jan. 1, 70 deg.; Feb. 29, 66 deg. Total rainfalls of 4.01", 4.07", and 1.63" were recorded for December, January, and February respectively. The weather for March, to date, has been very similar to the preceding month. Little more than a trace of snow has been recorded at any time during the winter.

The arrival of migrating water birds has been much later than last year and the variety and numbers have been much smaller. Arrival of some of the species and first observation dates for others are as follows: Jan. 9—Lesser Scaup and Bufflehead (from 5 to 10 birds of this species have spent the winter on Wilbur Lake and no more than one male has been seen with this flock); Jan. 19—Purple Finch; Jan. 20—Pied-billed Grebe, Baldpate;

Feb. 2—Mallard, Ring-necked Duck; Feb. 9—Savannah Sparrow, Vesper Sparrow; Feb. 16—Mourning Dove; Feb. 25—Purple Grackle; Feb. 29—Red-winged Blackbird; Mar.1—Rusty Blackbird; Mar. 2—Black Duck, Pintail, Wilson's Snipe; Mar. 6—Woodcock; Mar. 16—Ring-billed Gull; Mar. 18—Chipping Sparrow.—LEE R. HERNDON.

BOOK REVIEW

A CHECK-LIST OF THE BIRDS OF VIRGINIA, by Joseph James Murray. 113 p. 1952. Virginia Society of Ornithology.

Virginia is a State which has been studied ornithologically for many years, and very much has been learned about its birdlife. The Virginia Society of Ornithology has sponsored and directed this study since its organization in 1929, and has realized a great ambition in the publication of this book. T. O. S. members are glad to applaud the success of a sister society.

The first twenty-six pages of this book are an introduction to the ornithology of Virginia; they describe, and quote extensively from, some early accounts of Virginia birds, they cover the more recent history of Virginia ornithology, and they picture the physical features and faunal zones of the state. The remainder is an annotated list of the birds of Virginia, based on records in the literature, specimens in museums, and the field notes of many people. The notes on each species or subspecies state simply and concisely the known status and range of the bird in the State; there are no descriptions of plumages or behavior; there are no illustrations or maps, altho the latter would have been useful. Commendable caution has been used in preparing the list, and the authority for all unusual records is cited, so that the information can be accepted with confidence.

To this reviewer, a poor characteristic of the book is the treatment of subspecies, which places an undue emphasis on their importance. Where there are two or more subspecies of a species represented in the State, the subspecies names appear as headings of an equal rank with specific names, and the records for each subspecies are given separately. In order to get a picture of the distribution of a species in the State, it may be necessary to read the information on from two to five subspecies and piece it all together. A further disadvantage of this arrangement is that it gives a false accuracy to the sight records, nesting data, and other information not supported by collected specimens but included under a subspecific name; this information is probably correct, but one cannot be sure because usually it is impossible to make subspecific identifications of birds in the field.

Completion of this work fills in a big gap, for now there are fairly recent books on all the southern States of our Atlantic Coast, from Virginia southward. Copies of "A Check-List of the Birds of Virginia" may be purchased for $1.50 from Mr. A. O. English, 2803 Rosalind Avenue, S. W., Roanoke, Virginia.—JAMES T. TANNER.

ANNUAL MEETING OF THE T. O. S.

All members of the Tennessee Ornithological Society are urged to attend the meeting of Wilson Ornithological Club at Gatlinburg, Tenn., April 25-27, the T. O. S. being one of the host organizations for that occasion. Details of that meeting have been prepared by the local committee and are given elsewhere in this issue. The W. O. C. meeting and its programs will be well worth while, and it will afford our members a rare occasion to meet active ornithologists from all over the country.

The annual meeting of the Tennessee Ornithological Society will be held a month later on the weekend of May 23-25. At our last annual meeting, held at Standing Stone State Park, it was felt that T. O. S. members attending the Wilson Club meeting would wish to give all of their time to the numerous activities there scheduled and that there would be no time to handle our routine business, election of officers, etc. It was therefore decided that we would have our meeting as usual, a month later and in the central part of the State. Many members in that area and westerly, who cannot go to Gatlinburg, will be thus accomodated. The place chosen is Montgomery Bell State Park, situated 35 miles west of Nashville. We will be quartered in the Group Camp there, consisting of cottages, meeting and dining hall. Expenses will be very reasonable. A mimeographed letter giving details will be sent to all chapter secretaries for distribution and to any others who may write in for it.

Let all who can possibly do so attend the Wilson Club meeting; extend your best brand of hospitality, gather fresh inspiration and then attend our own less pretentious meeting in late May.—ALBERT F. GANIER, President, T. O. S.

GATLINBURG MEETING OF THE WILSON ORNITHOLOGICAL CLUB

The Wilson Ornithological Club, the second largest ornithological society in this country, will hold its 1952 annual meeting in Gatlinburg, Tenn., on the edge of the Great Smoky Mountains National Park, on April 25-27. The T. O. S. will be host at this meeting, with the help of the Georgia Ornithological Society and the Carolina Bird Club. The sessions will be held in the Playhouse of the Greystone Hotel. About 300 visitors, most out-of-state from the eastern half of the country, are expected.

The meeting will begin on Friday when much of the time will be devoted to presentation of papers. On Friday evening there will be moving pictures, followed by a reception sponsored by the T. O. S. Informal field trips will be held early Saturday morning and the regular sessions will not begin until about the middle of the morning. More papers will be given that day, and there will be a banquet Saturday night. On Sunday field trips will be held, some to the higher elevations of the Park, others to the lower elevations, so that the visitors will have a choice of birds and scenery.

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NOTES HERE AND THERE

The Tennessee Historical Commission recently placed a highway marker at the junction of U. S. Highways 31-W and 41-E north of Goodlettsville to indicate the house where Alexander Wilson, the "Father of American Ornithology", stayed April 22-24, 1810. Here he collected Carolina Paroquets and two new species, which he named the Tennessee Warbler and the Nashville Warbler. The dedication of this marker was attended by members of the T.O.S. An account, written by Albert F. Ganier, of Alexander Wilson's visit to Tennessee was published in "The Nashville Tennessean Magazine", Jan. 20, 1952.

The Wisconsin Society for Ornithology is this spring trying another method of studying bird migration. Questionairres are being sent to bird clubs and observers thruout the Mississippi valley; these questionairres pertain to the 1952 spring migration of a few selected species: geese, Mourning Dove, Baltimore Oriole, and White-throated Sparrow. From the reports to be received it is hoped that migration flights may be traced northward. Questionaires may be obtained from J. H. Zimmerman, Birge Hall, University of Wisconsin, Madison 6, Wisc.

The Elizabethton Chapter of the T. O. S. celebrated its eighth founding anniversary with a dinner on March 1, 1952. The speaker for the program was Arthur Stupka, Park Naturalist of the Great Smoky Mountains National Park. A field trip was held on the following day.

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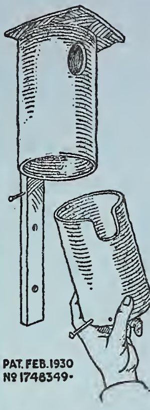

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THE ROOSTING BLACKBIRDS AT REELFOOT LAKE

By ROBERT J. DUNBAR

Ever since my first trip to Reelfoot Lake (1946) Mrs. Dunbar had expressed a desire to observe for herself the spectacular movement of the blackbirds to and from that celebrated roost. Her opportunity came when on December 15, 1951, we arrived at the lake at 3:00 p.m. on the heels of a cold front. The temperature was 20 degrees and falling and the strong west wind was cold and penetrating. That evening, with our heavy clothing still unpacked, we did most of our observing from the car where we could be close to the heater.

While waiting for the evening arrival of the blackbirds, we drove along the lake shore to Samburg. On the way we noted that ice had formed on the tree trunks and on the shore "twixt wind and water." Across the lake we could see that ice covered the shallow water under the protection of the lee shore, and that wherever the water was exposed to the wind it was free of ice.

At Samburg we stopped at the Fish and Wildlife Service Office for information about Reelfoot Refuge. While waiting for the Refuge Manager, Mr. Preston W. Lane, we talked at length with a Mr. Finkel who predicted that the blackbirds would arrive that evening about ten to fifteen minutes late due to their having to buck the strong west wind. He was right!

By the time the first small flock of blackbirds arrived, we were driving along the highway, which paralleled the east shore of the lake. In a few minutes several bird streams came into view flying directly into the wind. Four fairly well defined bird streams were observed, one in the vicinity of Samburg, one at the Morris Camp, one at Green Island and one along the south shore. Since these bird streams were approaching the roost from the east, it was apparent that the blackbirds which normally would have come in from the south or southeast had been blown off their normal course.

It is well known that wind velocities increase as the height above the earth increases. Birds seem to know this or at least they seem to take advantage of it. On this evening the blackbirds were flying low to the ground against the strong west wind. When they approached a line of trees across their route, they would continue to fly close to the ground until they were within about fifty yards when they would rise sharply up and over. Once over the obstacle they would again drop to within

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a few feet of the fields or surface of the lake, where there was the least resistance from the wind.

For a few minutes we exposed ourselves to the cold wind in order to stand on the dock at the Morris Camp, and we watched a stream of blackbirds swoop over the trees down to within a few feet above the water and continue on their way to Willow Bar. The lower birds were flying less than two feet above the waves and a few were flying so low that they surely must have had diffculty in keeping from contact with the crest of the larger waves. The evening flight was over at 5:35 p.m.

At 5:00 a.m. the following morning, dressed in our warmest clothing, we inspected the lake. The sky was almost cloudless, there was little or no wind, and the temperature was 6 degrees above zero. Ice had formed on the surface of the lake for a hundred or more feet out from either shore and on a few areas in between. One look at the ice and we gave up our plan to row out to Willow Bar, as I had done before (1951). Instead we took up our morning watch on the dock at the Morris Camp. From here Willow Bar was visible to the west, Green Island to the southwest, and a point opposite Samburg to the north. As the morning light increased we could see the shore line of Willow Bar begin to blacken with a great swarm of blackbirds massing on and hovering above the cutgrass. At 6:45 a.m. the leaders took off. This was a spectacular performance, because other birds closely following the leaders formed a serpent-like stream, which came twisting toward us. The birds were flying a few feet above the lake and when they neared the shore they swerved sharply upward and over us and the tree tops. The cross-section of the bird stream shortly after the beginning seemed to be about 100 feet wide by 30 feet deep. At one instant the stream would pass over the trees about one hundred yards to the north of us, then it would swing over us to a point about one hundred yards to the south and back again. The birds were no longer flying so low over the water. Looking north we could see another bird stream crossing the lake in the vicinity of Samburg and looking south a third leaving Green Island.

If one could have but thirty minutes to spend observing the blackbirds at Reelfoot and could pick the time and place, it is doubtful if a more strategic location than the Morris boat dock could be found or a better time than the few minutes before and after sunrise.

As we watched, the bird stream from Willow Bar widened to the full width of the Bar and was soon merged with the streams to the north and to the south of the Bar. A single bird stream could no longer be identified and Green Island became almost invisible to us because the intervening air space was filled with flying blackbirds. Since there was little or no wind the blackbirds apparently had little incentive to follow any particular route in leaving the roost or in flying low over the lake surface.

Now that the sky was filled with birds we attempted to identify the different bird forms of which there appeared to be four. An occasional flash of red on the wings of the Red-wing set that species apart from the rest. The long tail of the Grackle was in evidence also, but of the others we could not be sure. Our attention, however, was soon attracted to the unusual flight of a few individual birds which seemed to be in trouble. Scattered here and there along the under side of the flock we observed a considerable number of birds moving along at about half speed. Their wing beat was very rapid and their tails were bent down at an unnatural angle. As they came near the shore some seemed to increase their wing beat to lift themselves up to the branches of the nearest trees, but most of them continued their faltering flight through the branches of the trees in an effort to keep up with the flock. Those that found a perch made no attempt to leave the perch, or at least not until after we had quit our observation. Some perched within forty or fifty feet of where we stood and upon examination we found them all to be Grackles, with their tail tips encased in a block of ice about the size of a walnut (Fig. 1). Now we understood the reason for their unusual manner of flight. Because of the weight of their tails, it had been necessary for them to use their wings almost entirely in supplying lift with very little forward movement. Also, they had to use their wings for steering as well as for lifting, since the ice had made their tails practically useless for either steering or lifting. We observed a few birds, with more than the usual amount of ice on their tails, flying low over the lake surface. We were doubtful if they would be able to reach the shore or to lift themselves up to the low branches of the trees, but they did. We felt certain, however, that they could never have reached the shore had they been compelled to fly into a stiff head wind.

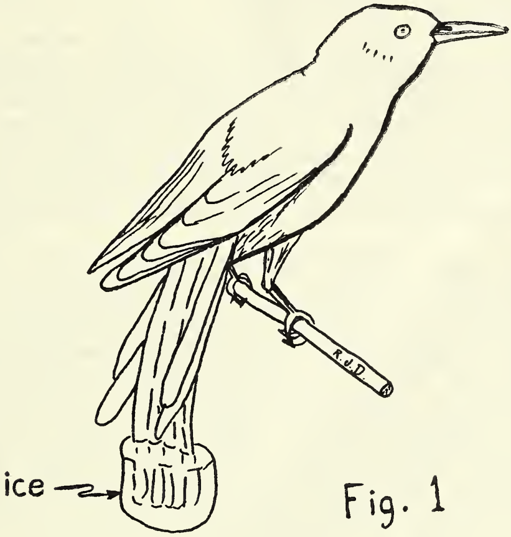

Fig. 1

Except for a very few stragglers, the morning flight of blackbirds was over at 7:15 a.m.

Later, while at breakfast, we pondered over the questions of how the ice formed on the Grackles' tails, and why had it been confined to Grackles. We evolved two theories: First, we thought it possible that the Grackles may have come to roost the preceding evening in the cutgrass or brush on the weather shore where there was wave action, and that the waves had come in contact with the long tails of the low-perching birds adding a little ice with each contact. Second, we thought that the long tails of the Grackles may have come in contact with the crest of the waves while the Grackles were flying low over the water the evening before. The ice must have formed on the Grackles' tails some time after their arrival at the lake on the preceding evening, since we did not at that time observe any birds with faltering flight.

It was 9:00 a.m. when we started to drive along a country road toward the Lake Isam Refuge. All along the way we observed flocks of from one to several dozen blackbirds feeding and making short flights in a southerly direction. These flocks consisted of Starlings, Cowbirds, Redwings and Grackles, with the Starlings and Cowbirds predominating. We were on the lookout for Grackles with ice on their tails, but found none. Perhaps the victims did not take long to peck and preen their tails free of the ice.

That evening about 3:30 we left the spillway to drive along the highway toward Dyersburg. In the first few miles we saw many small flocks of blackbirds which were feeding and moving leisurely in the general direction of the Reelfoot roost. In these flocks the Redwing appeared to be the predominating species. As we approached Dyersburg the flocks became larger and their movement toward the roost more deliberate. By the time we left Dyersburg for the return trip at 4:15 p.m., the flocks had assembled into bird streams, which were flying obliquely across the highway toward Reelfoot. We drove under a number of bird streams until we came to a stretch of road that paralleled the flight of one. For a distance of about one-half mile we clocked the ground speed of the birds by keeping up with one individual. The speedometer read between 27 and 28 miles per hour.

On our return to the lake we noted that the bulk of the blackbirds were approaching Reelfoot between the spillway and Samburg. There was little or no wind and the birds seemed to have merged into one wide stream extending from the spillway to Samburg, the exception being another stream which followed the south shore around to the west side of the lake. The main flight was over at 5:15 p.m., or about 20 minutes ahead of the flight on the preceding evening. However, a few small flocks kept coming to Green Island until 5:25 p.m. The official sunset time was 4:51 p.m.

On the following morning, December 17, there was very little open water on the lake, the temperature was 18 degrees above zero and the wind was from the southeast. As on the preceding morning the blackbirds darkened the near shore of Willow Bar as they assembled in great number before taking off at 6:45 a.m. The birds were bucking a fairly strong wind and were flying low over the ice. The leaders passed a little to the north of the Morris dock and by that time the mass of birds on Willow Bar had built up so fast that the middle of the bird stream had the appearance of trying to overtake tthe leaders. This wavering back and forth of the well-defined bird stream continued until the flight, except for a few stragglers, was over at 7:15 a.m. We watched for birds with ice on their tails but saw none.

It would be a most unusual observer who could watch the multitude of blackbirds depart and return to Reelfoot roost without expressing an interest in their number. When we asked one of the residents of Samburg how many blackbirds he thought came to the lake to roost he said, "There's an argument about that. Some say 2,000,000 and some say 8,500,000, and one would be as hard to prove as the other would be to disprove." In reply to the same question, Mr. Preston Lane replied, "This is a debatable question. I don't know how many birds roost on the lake nor do I know how to make a census with any degree of accuracy." He did, however, venture that his estimate for November 20, 1952, was slightly over two million, which he said was a guess and guess only.

It is doubtful if the number of roosting blackbirds at Reelfoot will ever be determined to the satisfaction of all interested observers, since so many variables must be taken into consideration. Yet we believe that the total number of blackbirds could be estimated within reasonable limits if enough interested observers were available at a time when the visibility was good and the weather conditions such as to cause the blackbirds to fly in well-defined bird streams—a big order to say the least.

This year we used a slightly different method to estimate the number of blackbirds leaving Willow Bar. On the morning of December 17, 1951, the weather conditions were such that the bird stream remained unbroken from the time the leaders left Willow Bar until the last birds passed over the east shore of the lake. Instead of trying to estimate the number of birds that were passing a point in a second (1951), the average volume of air space used by an individual bird and the average area of the cross-section of the bird stream were estimated. Other factors considered were the time it took the bird stream to pass a given point and the average speed of the flight. With these data the following formula was developed:

$$\frac{A \times S \times T}{V} = N, \text{ where}$$

N = the total number of blackbrids in the stream.
T = time required for bird stream to pass in minutes, 30 mins.
A = Average cross-section of bird stream in square feet, 3000 sq. ft.
S = Average ground speed in feet per minute, 27 m.p.h. or 2376 ft. per min.
V = the average volume of air space required by one bird in cubic feet, 150 cu. ft.

Substituting, $\frac{3000 \times 2376 \times 30}{150} = 1{,}425{,}600$ birds leaving Willow Bar.

We did not attempt the determination of the number of similar bird streams there may have been leaving the roost that morning, but there were several.

While "A" and "V" of the above formula were estimates based upon eye observation, it is believed that their values could be measured with reasonable accuracy by the following procedure. The average width of the bird stream could be determined by two observers each having a number of colored stakes. At the beginning of the flight the two observers would set a pair of stakes of the same color; one to mark the right edge of the stream and one to mark the left edge. For each increment of five minutes a pair of different colored stakes would be set to mark the width of the bird stream for the interval of time. The actual distance between the stakes of the same color could be measured later and the average width obtained.

To determine the depth of the bird stream, photograph equipment could be used to make pictures vertically upward for stereoscopic study. The pictures should be taken at the same time and interval as the colored stakes are set. Pictures would provide a means of determining not ony the depth of the bird stream but the density as well. Pictures might also enable the observer to determine the number of different species and their ratio to each other.

Weather not only affects the daily arrival of the blackbirds and their departure from the roost, but their seasonal arrival and departure as well. With reference to their fall arrival, Mr. Lane said, "This depends upon the weather to a certain extent. but the first birds are observed in early September. As you know some nest here, but the migration is noticed by September 15 and continues to build up until the cutgrass is mashed down or the lake rises covering the short grass. When either of these conditions exist the birds tend to roost in lesser numbers on the lake. What time they leave in the spring depends on weather conditions and lake levels, usually from February 10 to March 10."

Just what effect the "Cutgrass Control Efforts" at Reelfoot (Rawls, 1951) will have on the roosting population of blackbirds will of course depend upon the extent of that control, but it will most certainly tend to reduce their number.

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STUDIES OF NOCTURNAL BIRD MIGRATION IN THE MID-SOUTH

By ROBERT J. NEWMAN

In the spring of 1948, observers at Rosedale, Miss., at Memphis, Nashville, and Knoxville, Tenn., and at Louisville and Murray, Ky., trained small telescopes on the moon to obtain counts of migrating birds. The results of their 138 hours of moon-watching made a tremendous contribution to a discussion of nocturnal migration on a continental scale published last year by George H. Lowery, Jr. ("A Quantative Study of the Nocturnal Migration of Birds", University of Kansas Publications, Museum of Natural History, vol. 3, no. 2, pp. 361-472). They also furnished the basis for interesting local accounts by Albert F. Ganier, reporting for Nashville, and by James T. Tanner, reporting for Knoxville (see "Observing the Nocturnal Migration of Birds", Migrant, vol. 19, no. 2, pp. 17-20).

Computers at the Louisiana State University Museum of Zoology, calculated the directional trends of the birds seen and their flight densities, that is, the hypothetical number passing per hour per mile of front. The maximum one-night station density for the Kentucky-Tennessee-Mississippi area was obtained at Louisville, Ky., in April; it amounted to 17,000 birds. The maximum one-hour station densities for each locality were: Knoxville, 5800; Louisville, 5000; Murray, 3700; Memphis, 3400; and Rosedale, 2200. The figure for Knoxville was the third highest for April among the 28 stations set up at various points on the North American continent that spring.

The data from the area helped to establish that the volume of nocturnal migration changes from hour to hour according to an astonishing pattern. Typically, migrating birds seem to rest for an hour after twilight and then mount in increasing numbers into the sky. Usually the hour before midnight sees the greatest number a-wing. Thereafter the flights are likely to decrease steadily until, by the hour before dawn, nearly all of the migrating birds have come to earth. A sharp peak density of 2700 birds between 2 and 3 a.m. at Memphis on the night of April 23-24, 1948, is unique in its lateness. It will be impossible to decide what factors were responsible for this peculiar Memphis peak until further studies are undertaken at the same station.

Lowery also found that nocturnal migrants fly singly more often than in flocks, with a remarkably uniform dispersal through the air; that the directional trends of migration veer with the wind; and that the flights seem not to follow rivers, or other narrow, topographically-determined flight lanes, to any great degree. These results are but a foretaste of the important facts that may be discovered by a broader and more intensive application of the method. Improved mathematical techniques now permit the processing of data in unlimited quantities.

Accordingly, an attempt is being made to saturate the continent with observers for a cooperative study of fall migration in 1952. It is to be hoped that T.O.S. members, who did a splendid job in 1948, will be out in even greater force in 1952. Those who are in contact with local chapters can find out more about the projects there. Those who live away from the main centers and have access to a small telescope can find out how to establish a station of their own by writing immediately to Robert J. Newman, Museum of Zoology, Louisiana State University, Baton Rouge, La.

THE 1952 SPRING FIELD DAYS

By T. O. S. MEMBERS

The Lebanon Chapter started off this year's Field Days by holding theirs on April 26. Five chapters in the State held their Field Days on May 4, so we get an interesting cross section of the birds of Tennessee on that date. A total of 167 species were recorded from the five areas on May 4. An innovation this year is a report from Reelfoot Lake, where several species were reported that were not seen elsewhere in the State. The latest list comes from Montgomery Bell State Park, where the T. O. S. held its annual meeting on May 24-25. This was too late in the Spring for many migrants to be seen, but special attention was given to locating nests, with good results, and the report from there includes the nesting information.

The birds reported from each locality are listed in the "Table of Spring Field Days". The general information from each Field Day is in the paragraph below, and these paragraphs also contain special information on the birds marked with an asterisk (*) in the Table. The abbreviation "c" in the table means "common".

LEBANON.—April 26. Observations made in Wilson and DeKalb Counties as observers drove about 30 miles to Snow's Hill (near Smithville) for the day; a walk was taken morning and afternoon covering about a mile each time on the hill. Weather cloudy most of the day, temperature 55 degrees, not windy. Ten observers. Mrs. Henry Waters, compiler.

LAKEVIEW, MISS.-TENN.—May 4. Made by the Memphis Chapter and covering Lakeview and Riverside Park and Ensley bottoms, from 7 a.m. to 7 p.m. Weather sunny, temperature 90 degrees, wind light. This was the fourth day with the temperature over 90, each a record-breaker. Ben. B. Coffey, Jr., compiler.

There was practically no warbler migration, especially at Lakeview. The river bottoms were flooded and inaccessible. The Golden Plovers, a late record, were seen by Mr. and Mrs. Howard Barbig, George Peyton, and Richmond Gill; one was seen at fifty feet (it had much black plumage showing) and it joined three others flying in the air over the mud flat. The Wilson Snipe was seen by R. D. Smith, Jr., the Dowitcher and the Northern Waterthrush by Ben B. Coffey, Jr.

KNOXVILLE.—May 4. Including the usual area of 7½ mile radius centered on Sharp's Gap at the northwest corner of Knoxville, from 5 a.m. to 7 p.m. Weather clear, temperature 60 to 80 degrees, wind slight.

About 25 observers. James T. Tanner, compiler. The group met for lunch at the home of H. P. Ijams, in his honor, this field day being called "Harry Ijams Day".

A Prothonotary Warbler had a nest with three eggs in front of the Ijams home. The rather unusual number of Bobolinks for this area were in four flocks, seen by J. C. Howell.

GREENEVILLE.—May 4. Covering an area within a ten-mile radius of Greeneville, 4:30 a.m. to 5:30 p.m. Weather fair, temperature 80 degrees, wind slight. Nine observers. C. M. Shanks, compiler.

The Little Blue Heron was observed by Mr. and Mrs. J. B. White as it walked along the bank of a pond near the University of Tennessee Experiment Farm; the distance was about 40 feet and it was observed with a good pair of glasses for fifteen minutes. The Connecticut Warbler was observed by Mr. and Mrs. Alfred Irvine near Alexander's Beach on the Nolichuckey River. It flew from tree to tree and lit on low limbs making possible very close observation for about twenty minutes.

KINGSPORT.—May 4. Area within seven miles of Kingsport including Bay's Mountain and a private fish hatchery, 5 a.m. to 7:30 p.m. Weather clear, temperature 45 to 85 degrees, slight wind. Fourteen observers in five parties covering approximately nineteen miles on foot and fifty miles by car. Ann Harney Switzer, compiler.

The total count of 93 species is the lowest ever recorded by the Kingsport club for a spring field day. In part this can be accounted for by the early departure of some winter residents often recorded as late as the second week in May, and there were a number of spring migrants usually observed by the first week in May which arrived late this year. House Wrens are increasing in numbers year by year in this area. We feel that 23 is a very conservative figure, low because we cover little residential area in our census. The number of Hooded Warblers was ununually high.

The season in general showed about average first arrival dates, such as the following for species not recorded in the census: Chuck-will's-widow, May 1; Rose-breasted Grosbeak, May 6; Ruby-throated Hummingbird, May 17; Olive-sided Flycatcher, May 8; Least Flycatcher, May 6.

ELIZABETHTON.—May 4. Elizabethton area including Watauga Lake, 4:00 a.m. to 6:00 p.m. Weather clear, temperature 46 to 82 degrees, wind none to 10 m.p.h. Thirteen observers. Dr. L. R. Herndon, compiler.

BRISTOL.—May 4. Bristol, Abingdon, and vicinity including Iron Mountain northeast of Abingdon. Sixteen observers.

The Raven was seen by Steve M. Russell on Iron Mountain at an elevation of about 3400 feet.

REELFOOT LAKE.—May 17. Walnut Log, Spillway, and vicinity. 9:00 a.m. to 6:00 p.m. Weather partly cloudy with showers, temperature 74 to 70 degrees. Five observers. Howard Barbig, compiler.

The Yellow-bellied Flycatcher's characteristic note was heard. The Northern Waterthrush was seen at a distance of a few feet.

MONTGOMERY BELL STATE PARK.—May 24-25. Montgomery Bell

State Park and its immediate surroundings. Weather varied from rain to clear with little wind. About 50 observers altogether, altho not all were present for the full two days. The number of birds reported in the table are estimates of the actual number present in the parts of the park covered. James T. Tanner, compiler.

The Marsh Hawk was reported by Mrs. Millard C. Kent.

Because the migration season was almost over and the nesting season was in progress, considerable effort was made to locate the nests of birds. The following species were observed building a nest: Phoebe, Prairie Warbler. The following had nests with eggs; the number that follows each name is the number of eggs in each nest found: Yellow-billed Cuckoo, 3, 3, and one with 2 eggs and 1 young; Whip-poor-will, 1; Phoebe, 5, 4; Bluebird, 4; Red-eyed Vireo, 3; Kentucky Warbler, 5; Yellow-breasted Chat, 4; Eastern Meadowlark, 2; Field Sparrow, 4. The following had young in the nest, with the number indicated if known: Yellow-billed Cuckoo (see above); Red-bellied Woodpecker; Phoebe, 4; Bluebird, 3; Blue-winged Warbler, 5. Pileated Woodpeckers and Wood Pewees had nests with either eggs or young. The following had young out of the nest: Brown Thrasher, Eastern Meadowlark, and Red-winged Blackbird.

TABULAR RECORD OF SPRING FIELD DAYS

SPECIES	LEBANON April 26	LAKEVIEW May 4	KNOXVILLE May 4	GREENEVILLE May 4	KINGSPORT May 4	ELIZABETHTON May 4	BRISTOL May 4	REELFOOT LAKE May 17	MONTGOMERY BELL May 24-25
Common Loon	-------	-------	-------	-------	-------	2	-------	-------	-------
Pied-billed Grebe	-------	6	-------	-------	-------	2	-------	1	-------
Double-crested Cormorant	-------	16	-------	-------	-------	-------	-------	15	-------
Great Blue Heron	-------	32	1	-------	-------	-------	-------	11	-------
American Egret	-------	4	-------	-------	-------	-------	-------	31	-------
Little Blue Heron	-------	-------	-------	*2	-------	-------	-------	72	-------
Green Heron	1	3	3	4	13	1	3	5	3
Black-crowned Night Heron	-------	-------	-------	-------	-------	1	-------	-------	-------
American Bittern	-------	2	1	-------	-------	-------	-------	1	-------
Least Bittern	-------	-------	-------	-------	-------	-------	-------	11	1
Blue-winged Teal	-------	14	-------	-------	-------	2	-------	2	-------
Baldpate	-------	-------	-------	-------	-------	2	-------	-------	-------
Wood Duck	-------	1	1	-------	-------	17	1	8	-------
Redhead	-------	1	-------	-------	-------	-------	-------	-------	-------
Ring-necked Duck	-------	-------	1	-------	-------	-------	-------	-------	-------
Lesser Scaup Duck	-------	2	-------	-------	-------	14	-------	-------	-------
Turkey Vulture	-------	2	3	7	10	13	20	1	3

Black Vulture	5	2	-------	-------	8	-------	3	1	4
Mississippi Kite	-------	1	-------	-------	-------	-------	-------	-------	-------
Cooper's Hawk	-------	2	2	1	-------	1	-------	-------	-------
Red-tailed Hawk	-------	1	-------	-------	-------	-------	-------	-------	2
Red-shouldered Hawk	-------	1	-------	-------	-------	-------	-------	2	-------
Broad-winged Hawk	-------	2	5	-------	-------	3	-------	-------	2
Bald Eagle	-------	-------	-------	-------	-------	-------	-------	1	-------
Marsh Hawk	-------	-------	-------	1	-------	-------	-------	-------	*1
Osprey	-------	-------	3	-------	-------	2	-------	1	-------
Duck Hawk	-------	-------	-------	-------	-------	-------	-------	1	-------
Sparrow Hawk	-------	1	5	11	2	4	3	1	1
Ruffed Grouse	-------	-------	-------	-------	-------	-------	1	-------	-------
Bob-white	-------	8	40	8	8	21	14	-------	5
King Rail	-------	-------	1	-------	-------	-------	-------	-------	-------
Sora	-------	3	-------	-------	-------	-------	-------	-------	-------
Purple Gallinule	-------	-------	-------	-------	-------	-------	-------	3	-------
Florida Gallinule	-------	-------	-------	-------	-------	-------	-------	8	-------
Coot	-------	3	1	-------	1	2	-------	4	-------
Semipalmated Plover	-------	3	-------	-------	-------	-------	-------	-------	-------
Killdeer	2	6	18	5	26	21	17	4	1
Golden Plover	-------	*4	-------	-------	-------	-------	-------	-------	-------
Wilson's Snipe	-------	*1	-------	-------	-------	-------	-------	-------	-------
Spotted Sandpiper	-------	1	13	1	4	7	2	-------	2
Solitary Sandpiper	-------	6	10	9	7	4	-------	-------	1
Greater Yellow-legs	----	2	-------	-------	-------	1	-------	-------	-------
Lesser Yellow-legs	-------	13	-------	-------	-------	-------	-------	-------	-------
Pectoral Sandpiper	-------	5	-------	-------	-------	-------	-------	-------	-------
Least Sandpiper	-------	24	-------	-------	-------	-------	-------	-------	-------
Dowitcher	-------	*1	-------	-------	-------	-------	-------	-------	-------
Ring-billed Gull	-------	30	-------	-------	-------	4	-------	-------	-------
Least Tern	-------	-------	-------	-------	-------	-------	-------	3	-------
Black Tern	-------	-------	-------	-------	-------	-------	-------	9	-------
Mourning Dove	6	13	84	54	42	23	34	11	10
Yellow-billed Cuckoo	-------	3	4	2	1	-------	-------	7	*c
Black-billed Cuckoo	-------	-------	1	-------	-------	2	1	-------	2
Barn Owl	2	-------	-------	-------	-------	-------	-------	-------	-------
Screech Owl	-------	-------	2	2	1	-------	-------	-------	-------
Barred Owl	-------	1	-------	-------	-------	-------	-------	1	1
Chuck-will's-widow	1	3	12	-------	-------	-------	-------	-------	-------
Whip-poor-will	1	-------	1	1	-------	17	6	-------	*3
Nighthawk	1	1	15	4	7	4	10	3	2
Chimney Swift	12	7	c	75	33	52	45	4	c
Ruby-throated Hummingbird	4	7	4	4	-------	5	7	9	5
Belted Kingfisher	1	2	3	5	1	7	-------	-------	-------
Flicker	-------	4	35	25	52	23	25	2	4
Pileated Woodpecker	-------	1	4	7	1	-------	4	2	*4
Red-bellied Woodpecker	4	5	7	2	1	1	12	4	*6
Red-headed Woodpecker	1	1	15	7	3	-------	-------	-------	1
Yellow-bellied Sapsucker	-------	-------	-------	-------	-------	-------	1	-------	-------
Hairy Woodpecker	-------	3	1	27	-------	-------	-------	1	2
Downy Woodpecker	2	3	12	13	6	2	13	9	3
Eastern Kingbird	-------	15	13	4	12	9	6	3	7
Crested Flycatcher	1	15	30	28	10	1	2	8	7
Phoebe	2	-------	26	26	24	21	27	-------	*6
Yellow-bellied Flycatcher	-------	-------	-------	-------	-------	-------	-------	*1	-------
Acadian Flycatcher	-------	4	4	2	5	1	-------	2	c
Least Flycatcher	-------	-------	-------	-------	-------	3	-------	-------	-------
Wood Pewee	-------	11	7	12	12	16	22	10	*6
Horned Lark	-------	18	3	-------	2	7	-------	-------	-------

Tree Swallow	-------	30	3	-------	-------	-------	-------	-------	-------
Bank Swallow	-------	2	2	-------	5	-------	-------	-------	-------
Rough-winged Swallow	-------	23	17	11	4	59	23	5	2
Barn Swallow	-------	12	19	8	4	1	7	6	-------
Cliff Swallow	-------	-------	-------	-------	-------	8	-------	-------	-------
Purple Martin	-------	1	50	42	30	12	-------	29	1
Blue Jay	15	14	75	41	65	76	42	12	16
Raven	-------	-------	-------	-------	-------	-------	*1	-------	-------
Eastern Crow	25	5	60	31	40	97	37	19	10
Fish Crow	-------	25	-------	-------	-------	-------	-------	-------	-------
Carolina Chickadee	-------	37	50	20	21	34	46	24	10
Tufted Titmouse	4	6	65	31	23	34	19	3	6
White-breasted Nuthatch	-------	1	4	1	-------	-------	5	3	3
Red-breasted Nuthatch	-------	-------	3	1	-------	1	-------	-------	-------
Brown Creeper	2	-------	-------	-------	-------	-------	-------	-------	-------
House Wren	-------	-------	2	6	*22	-------	37	-------	-------
Bewick's Wren	2	1	5	9	7	4	3	1	2
Carolina Wren	2	6	c	29	32	76	21	5	6
Long-billed Marsh Wren	-------	25	3	-------	-------	-------	-------	-------	-------
Short-billed Marsh Wren	-------	8	-------	-------	-------	-------	-------	-------	-------
Mockingbird	2	4	c	82	47	32	43	3	1
Catbird	1	12	35	38	31	85	59	-------	10
Brown Thrasher	-------	1	48	56	25	32	31	2	*10
Robin	13	4	c	97	79	114	137	3	8
Wood Thrush	5	6	49	31	45	47	60	7	c
Hermit Thrush	-------	-------	2	-------	-------	-------	-------	-------	-------
Olive-backed Thrush	-------	3	2	-------	-------	-------	-------	4	4
Veery	-------	-------	1	-------	-------	-------	-------	-------	-------
Eastern Bluebird	6	7	c	47	23	45	22	6	*22
Blue-gray Gnatcatcher	5	12	30	19	12	6	3	6	15
Ruby-crowned Kinglet	-------	-------	6	-------	-------	-------	-------	-------	-------
Cedar Waxwing	-------	38	47	42	60	6	20	17	2
Loggerhead Shrike	-------	2	4	-------	-------	-------	-------	4	1
Starling	20	4	c	150	52	98	175	c	1
White-eyed Vireo	2	17	36	9	7	28	4	4	12
Yellow-throated Vireo	1	2	16	1	5	7	1	-------	6
Blue-headed Vireo	-------	-------	1	1	-------	1	2	-------	-------
Red-eyed Vireo	2	12	c	13	15	50	45	6	*c
Warbling Vireo	-------	11	3	-------	7	9	-------	3	6
Black and White Warbler	-------	1	21	4	7	16	10	-------	11
Prothonotary Warbler	-------	12	*3	-------	5	-------	-------	7	2
Worm-eating Warbler	-------	-------	-------	2	1	-------	12	-------	-------
Golden-winged Warbler	-------	-------	1	-------	-------	-------	1	-------	-------
Blue-winged Warbler	-------	-------	-------	-------	-------	-------	-------	-------	*10
Tennessee Warbler	-------	2	1	1	2	-------	-------	2	-------
Parula Warbler	-------	6	-------	-------	6	7	8	6	-------
Yellow Warbler	-------	3	27	48	22	73	31	1	-------
Magnolia Warbler	-------	-------	2	1	-------	1	1	-------	-------
Cape May Warbler	-------	-------	20	-------	1	-------	-------	-------	-------
Black-throated Blue Warbler	2	-------	-------	-------	1	4	35	-------	-------
Myrtle Warbler	1	5	13	5	3	2	-------	-------	-------
Black-throated Green Warbler	-------	1	4	-------	5	-------	15	1	-------
Cerulean Warbler	-------	2	1	-------	-------	1	-------	3	16
Blackburnian Warbler	1	-------	8	-------	5	1	4	-------	-------
Yellow-throated Warbler	-------	8	15	26	-------	-------	-------	4	4
Chestnut-sided Warbler	-------	1	3	3	-------	2	25	-------	-------
Bay-breasted Warbler	-------	-------	3	-------	1	-------	-------	3	1
Black-poll Warbler	-------	1	5	-------	-------	-------	-------	7	-------
Pine Warbler	-------	-------	3	-------	2	-------	-------	-------	-------

Prairie Warbler	--------	--------	37	1	--------	4	5	--------	*c
Palm Warbler	--------	--------	2	--------	2	3	--------	--------	--------
Oven-bird	--------	1	23	1	2	13	18	--------	2
Northern Water-thrush	--------	*1	--------	--------	--------	1	--------	*1	--------
Louisiana Water-thrush	--------	3	5	4	4	5	1	--------	5
Kentucky Warbler	--------	3	12	1	12	1	--------	--------	*8
Connecticut Warbler	--------	--------	--------	*2	--------	--------	--------	--------	--------
Yellow-throat	--------	43	40	4	21	35	12	8	9
Yellow-breasted Chat	--------	32	60	22	23	41	3	3	*c
Hooded Warbler	1	3	14	4	*13	11	20	1	1
Canada Warbler	--------	--------	--------	1	--------	--------	--------	--------	--------
Redstart	2	10	8	1	2	12	--------	27	--------
English Sparrow	6	10	21	56	2	74	161	c	1
Bobolink	--------	208	*125	--------	--------	3	--------	--------	--------
Eastern Meadowlark	22	104	c	61	52	58	74	14	*6
Red-winged Blackbird	1	48	80	91	43	36	78	700	*3
Orchard Oriole	3	37	26	14	10	6	1	2	7
Baltimore Oriole	2	5	--------	3	6	3	8	2	1
Purple Grackle	12	35	c	165	45	72	52	52	5
Cowbird	5	40	35	18	18	33	10	21	15
Scarlet Tanager	--------	1	9	1	10	5	8	--------	7
Summer Tanager	2	13	50	19	15	1	23	6	c
Cardinal	14	59	c	93	c	82	135	27	c
Rose-breasted Grosbeak	--------	2	7	--------	--------	--------	10	--------	--------
Indigo Bunting	--------	100	60	16	15	12	2	40	c
Painted Bunting	--------	3	--------	--------	--------	--------	--------	--------	--------
Dickcissel	--------	205	--------	1	--------	--------	--------	28	1
Purple Finch	--------	--------	--------	2	--------	--------	4	--------	--------
Gold Finch	10	20	c	75	59	72	68	3	6
Red-eyed Towhee	1	3	c	25	37	45	47	1	c
Savannah Sparrow	--------	20	5	--------	5	2	--------	--------	--------
Grasshopper Sparrow	--------	28	20	12	9	19	3	1	--------
Vesper Sparrow	--------	--------	--------	--------	2	3	--------	--------	--------
Bachman's Sparrow	--------	--------	2	--------	2	1	--------	--------	5
Slate-colored Junco	--------	--------	--------	--------	--------	1	1	--------	--------
Chipping Sparrow	8	--------	35	27	10	39	15	1	c
Field Sparrow	--------	1	c	47	39	61	35	3	*10
White-crowned Sparrow	--------	--------	3	13	4	16	--------	--------	--------
White-throated Sparrow	--------	22	c	9	19	22	33	--------	3
Lincoln's Sparrow	--------	3	--------	--------	--------	--------	--------	--------	--------
Swamp Sparrow	--------	30	1	--------	--------	1	--------	--------	--------
Song Sparrow	--------	--------	c	76	64	113	58	--------	--------
Total Species	49	122	121	93	93	106	85	93	86

THE ROUND TABLE

RING-BILLED GULL IN THE GREAT SMOKY MOUNTAINS NATIONAL PARK.—On April 27, 1952, a Ring-billed Gull was seen in the Cade's Cove section of the National Park under interesting circcumstances. A motorcade of members of the Wilson Ornithological Club had stopped in the road to view the valley when the gull rose from a ploughed field near a farm house and winged its way up and down the gathering. Sensing that the bird was seeking food, I found some biscuits in my car and sailed several of these out as the gull came by again. He showed quick interest and alighted, picked up one of the biscuits, and then flew back to the field to eat it. He then returned for another. Having identified it to our satisfaction, we moved on. Returning about four hours later I saw the gull still in the field and stopped my car at the same place so may companions could view him. The bird almost at once flew directly toward us. I again threw more biscuits, one of which he picked up and returned with it to the field as before. We then resumed our journey. The quickness with which the bird accepted food from people probably came from its having received food from groups of people wherever it had spent the winter.

Park Naturalist Arthur Stupka informs me that this is the fourth Park record for the Ring-billed Gull, the others being in November and December.—ALBERT F. GANIER, Nashville, Tenn.

CAROLINA WREN'S NEST WITH TWELVE EGGS.—On May 19, 1952, I found the nest of a Carolina Wren that contained twelve well-incubated eggs. This was at the Methodist Assembly at Beersheba Springs, Grundy County, Tenn. The nest was located in a tin pail on a workbench in a little-used workshop. So unusual was this find that I called upon several bird lovers to make their own count of the contents of the nest. Among these people were Rev. Elma Broyles of Murfreesboro, Dr. and Mrs. A. J. Davis of Nashville, and Miss Laura Hess of Nashville. Everytime we approached the nest the little wren was incubating the eggs. During the three days I was at Beersheba Springs I kept a sharp lookout to ascertain whether two or more females had participated in laying the twelve eggs, but I saw only one female and heard only the one male singing during my stay. On June 12 Mr. Dennis Brown of the Methodist Assembly wrote me that the eggs were still in the nest. Since I found the nest on May 19, it is plainly evident that the wren abandoned the nest.—HARRY R. CALDWELL, 1117 Maplehurst Avenue, Nashville 4, Tenn.

MIGRATING BOBOLINKS AT LEBANON.—On the morning of April 30, 1952, Mr. and Mrs. M. C. Kent and I started from my home, four miles east of Lebanon, about 6:30 for an early bird walk. As we started out we heard a great twittering and singing at the edge of a field of barley and crimson clover, and we found Bobolinks, hundreds of them.

As we watched, small flocks of perhaps 50 to 75 would drop out of the sky into the trees along the fence. We could see them fly down into the grain and rise up wet with the dew into the tops of the trees to preen. Occasionally a flock would leave, flying north, but others would drop down out of the heavens to take their place. They were evidently flying too high to be seen, until they heard their mates and dropped down to join them. Later we saw some of them in trees north of the house. We estimated that there were at least 600, probably more, for we could not see how many were down in the grain.

Every day since then thru May 16 I have seen Bobolinks in that field and in those trees, at about 7 a.m. and at other times during the day. Several times I have seen 15 to 20 come to the small pond near the house for water and bathing. I had never seen Bobolinks before, and to have such a wealth of them descend on me was a most thrilling experience. —TRESSA D. WATERS. Lebanon, Tennessee.

EVENING GROSBEAKS NEAR HARRIMAN. — On April 3, 1952, I received information that a flock of strange birds was near the Administration Building at the Kingston Steam Plant. They were described as plump and having white bills. I guessed that they were Evening Grosbeaks and went to the building next morning with a supply of sunflower seeds. The birds were present and found the seeds in a few minutes. Next day three traps were placed, two small and one very large. An engineer in the building agreed to watch the traps. On the morning of the 6th one female entered the large trap and on the 7th a male went in. These were banded. On the 9th the engineer called to say that the trap was full of birds. I found that the two banded individuals were inside in addition to eleven new ones. Four males flew up from the ground outside so it is known that there were at least seventeen. The last date the birds were seen was April 27. A few days after the wholesale banding I removed the traps because of the birds' reluctance to re-enter.

A Mrs. T. C. Farnham of Harriman, who came at my request to see the Grosbeaks, identified them as the same species that spent some days at her house in late February thru March 1.—ADELE H. WEST, Rt. 4, Harriman, Tenn.

DOUBLE-CRESTED CORMORANTS NESTING IN MISSISSIPPI. — On December 30, 1951, I noticed a group of nests in a large cypress in a brake about one mile west of Clayton, Miss. Demett Smith and I waded in to the tree on May 18, 1952, and estimated it to be about 120 feet high, with a diameter of about six feet at a height of four feet. No other cypress trees were nearby. There were 45 nests in the tree with well-grown young. Judging by the nestlings and adults seen, and by the more compact and deeper nests, twelve nests were those of the Double-crested Cormorant and the remainder were of the Great Blue Heron. This is the first published record for the nesting of the Cormorant in the State. Oberholser in "The Bird Life of Louisiana" (1938) reports it breeding in southern Louisiana. North of here it nests at Reelfoot Lake and has nested on Kentucky Lake near Waverly (Cypert, 1949. Migrant 20:41).

Negro tenant Farmers at the Mississippi locality stated that there had been many more birds, but that much cypress was cut several years ago.—BEN B. COFFEY, JR., Memphis, Tenn.

SPRING NOTES FROM MEMPHIS.—A Black-bellied Plover, partly in nuptial plumage, near Lakeview on May 18 was the first spring record (RDS, BC). For the third spring we had a Golden Plover migration, but only about one-third the maximum of the other two years. Near Lake Cormorant, Miss., were seen 419 on Mar 23, 549 on Mar. 29 (Keeton and Kent), and 82 on Mar. 30. McPherson found 140 at the Penal Farm Mar. 22 and 90 on Apr. 5. A very late record is of the four plovers reported in the Memphis Spring Field Day (May 4). George Peyton saw a Caspian Tern on May 10 off Riverside Park and another was seen on May 11 at the tip of Mud Island.

A Kingbird on Mar. 31 and Apr 3 seen by Oliver Irwin was much earlier than any seen later; probable transients passing thru were 226 on May 17 (RDS), 200 on May 20, and 45 on May 18. Similar were 285 Cliff Swallows on May 18 when the swallows nesting on the Savannah bridge over the Tennessee River were beginning to feed young on May 21 (Mrs. Josephine P. DeBerry).

Phoebe nests found were: May 25, Germantown Road, one nest with four eggs, one with evidence of young having left, and one inaccessible nest atop the one 1951 nest; May 31, south of Capleville, nest atop a 1951 Barn Swallow nest.

Overton Park trips were frequent from mid-March to late May with Luther Keeton and the writer teaming up in an effort to check arrivals. Unfortunately, when the warbler movement became noticeable about April 20, a gap occurred when most of our observers attended the Wilson Ornithological Club meeting in Gatlinburg. On our return on Apr. 29, it seemed that the movement had passed, but it was followed by a better than usual movement of "late" warblers, especially between May 10 and 20 A record early Blue-winged Warbler was one on Apr. 5 and 7, and they were fairly common Apr. 12 to 22. Redstarts were common from Apr. 16 to May 17. There were seventeen Blackburnians noted between Apr. 29 and May 21. No Palm, Yellow, or Golden-winged Warblers were recorded there and only one Prairie, on Apr. 16. Cerulean Warblers appeared much below normal, a total of sixteen between Apr. 6 and May 10 "Late" Warblers more common than usual were Magnolia, Chestnut-sided, Bay-breasted, and Black-polled. Howard and Evelyn Barbig reported a Mourning Warbler on May 13.—BEN B. COFFEY, JR., Memphis, Tenn.

BOOK REVIEW

CRIP, COME HOME. By Ruth Thomas. 175 p. 1952. Harper & Bros., N. Y. $2.50.

Two stories are interwoven in this book; one is of a crippled but indomitable Brown Thrasher and the other is of the two owners of the country home where "Crip" also lived.

The Thrasher's is a remarkable story. Despite a broken wing which healed crookedly, the bird lived for six years more in the author's garden; it migrated two winters, no one knows how far, and passed the others in the garden, north of the usual winter range. Despite its handicap, the bird maintained a territory, mated each season, and had the usual success of song birds in rearing young. The author kept a watch on this bird almost daily. She banded his mates and rivals with color bands, counted the young that left each nest, and many nights watched him go to roost. Her success was partly made possible by the bountiful feeding station she maintained, which undoubtedly lengthened the Thrasher's life. There is a great deal of "humanizing" of birds in this book, to which students of bird behavior will object, but this is counterbalanced by the intimate knowledge that the author had of one bird's life and makes sense when one considers the effect that "Crip" had on her life.—J. T. T.

BIRDS OF LA PLATA. Notes by W. H. Hudson. Introduction by Richard Curle. Color plates by S. Magno. 46 p. 16 plates. 1952. Penguin Books, 3300 Clipper Mill Road, Baltimore 11, Md. 95c.

Art and literature have long held a place in ornithology, or perhaps it is the other way around. Anyway, this book combines all three. W. H. Hudson belongs to both literature and ornithology, and both his literature and ornithology have the same flavor, that of the out-of-doors and especially of the pampas of South America. This little book is a combination of three parts: First there is the introduction which presents a brief summary of Hudson's life and character by one who knew him.Second come abridged notes taken from the original "Birds of La Plata" by Hudson; these describe sixteen species of Argentine birds and exemplify both the knowledge of wild birds and the literary style that made him famous. Last are sixteen colored plates of these same birds by S. Magno; these are well-chosen for variety, are attractive and colorful, and the color reproduction is very good considering the low price of the book. But it must be said that they do not portray the living bird as well as Hudson's notes. This is not a handbook or a guide. It will appeal to the collector of books about birds (its price certainly will), to the Hudson enthusiast, and to those interested in natural history literature.—J. T. T.

BIRD RECOGNITION, II. Birds of Prey and Waterfowl. By James Fisher. 186 pp. Illustr. 1951. Penguin Books, Inc., 3300 Clipper Mill Road, Baltimore 11, Md. 85c.

The "Bird Recognition" series about Brtiish birds, of which this is the second of four planned, combine completeness and low cost to an amazing degree. The general plan of this book is this: The material on each species covers two facing pages and consists of a wash drawing of the bird, a map of the British Isles showing its breeding and non-breeding season distribution, an ingenious diagram which summarizes the birds' activities in Britain thruout the year, and the text. This latter describes the recognition characters, food habits, breeding, world-wide distribution of the species, movements, and suggests further reading. At the beginning and end of the book are tables, keys, and additional illustrations. The material is so compact and concise that there is a tremendous amount of information assembled on each species. For Americans, this series will provide a cheap and handy reference work for British birds.

This volume covers owls, hawks, and their relatives, storks and herons, the waterfowl, grebes, and loons.—J. T. T.

BIRD WATCHING FOR BEGINNERS. By Bruce Campbell. 240 p. Illust. 1952. Penguin Books, Inc., 3300 Clipper Mill Road, Baltimore 11, Md. 65c.

There is no doubt about gettinng your money's worth in a book like this. This book contains a number of ideas for bird study. Part One is a general introduction to birds and bird watching. Part Two describes the general habits of the commoner species of British birds and makes interesting reading to an American who compares the descriptions given with the situations and birds with which he is familiar. Part Three's title is self-explanatory, "Problems of Bird Watching". There is an appendix and index.

The book is pleasantly and informally, almost personally, written. The illustrations, either of birds or of ways of doing things, are simple but good, and the printing and appearance of this little book are excellent. Almost any bird student will enjoy skimming thru this book, and in it the beginner will find many suggestions for bird watching.—J. T. T.

NESTBOXES. By Edwin Cohen and Bruce Campbell 32 p. Illustr. 1952. British Trust for Ornithology, 2 King Edward St., Oxford, England. 2s. 6d.

This manual of how to build and place nestboxes is unusual in the wide variety of boxes and artificial nest sites described. Most of those described and figured are fairly typical nest boxes, all fitted with lids or fronts that open for examination of the contents and cleaning, but there are also directions and suggestions for attracting creepers, owls, swallows, and ledge-nesting birds, which are kinds of birds usually not included in such manuals. Nineteen designs are included. The directions for making the boxes, with the accompanying figures, are clear and apparently complete. The discussion of the placing of the boxes, while intended for British species, will suggest what should be done in this country.—J. T. T.

REPORT OF THE T. O. S. ANNUAL MEETING FOR 1952

The annual meeting of the Tennessee Ornithological Society was held at Montgomery Bell State Park on May 24 and 25 in one of the group camps of the park. Many members stayed thru the two days, sleeping in the cabins, while others came for one or the other of the two days. Excellent meals were provided, mess hall style, in the large dining room. The total attendance was about 60 members. It was a successful meeting from all viewpoints, and Pres. Ganier, who shouldered the burden of making arrangements, was congratulated and deservedly thanked by all who were there.

The important "business" of the meeting was field work, and most of the time was spent in the woods and fields and around the lake of the beautiful park. The observations made are recorded in this issue in report on Spring Field Days.

The small amount of real business was transacted swiftly in the meeting held early Saturday afternoon. The Society's officers made their reports, and the Society, including its finances, is sound and healthy.

The following state officers were elected:
President—Albert F. Ganier (re-elected)
Vice-President for West Tennessee—Miss Nelle Moore.
Vice-President for Middle Tennessee—Mrs. E. W. Goodpasture.
Vice-President for East Tennessee—Fred W. Behrend.
Secretary—Edwin D. Schreiber (re-elected).
Treasurer—Lawrence C. Kent (re-elected).
Editor—James T. Tanner (re-elected).
Director-at-Large, West Tennessee—Miss Alice Smith.
Director-at-Large, Middle Tennessee—Millard C. Kent.
Director-at-Large, East Tennessee—Mrs. R. A. Monroe.

After brief discussion, it was voted that the place and time for next year's annual meeting be Nashville on May 11-12, 1953.

THE WILSON ORNITHOLOGICAL CLUB MEETING AT GATLINBURG

The Wilson Ornithological Club held its annual meeting at Gatlinburg on April 25-27 of this year. The T.O.S. was one of the host societies. Over 300 people attended the meeting, including about 60 members of our society. The T.O.S. was host at an informal gathering held on Friday evening after the program, when people had a chance to mingle and talk with each other; refreshments were supplied by the society. Altho a good percentage of the Great Smoky Mountains' annual rainfall of 80 inches fell during the week end, the visitors enjoyed the meeting and many got a taste of the Smokies for their first time.

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The simple truth about birds is interesting enough;
it is not necessary to go beyond it.

ROUND-UP OF CHAPTERS AND MEMBERS

Here is a summary of the chapters of the T.O.S., the number of their members and the officers elected for this coming year.

MEMPHIS. 90 members. Pres., Demett Smith. V.-Pres., Brother Leo Thomas. Recording Secy., Miss Patricia Moore. Corresp. Secy., Mrs. Howard Barbig. Treas., John O'Callaghan.

NASHVILLE. 88 members. Pres., Miss Helen Howell. V.-Pres., Mrs. E. W. Goodpasture. Sec.-Treas,, Miss Jennie Riggs.

KNOXVILLE. 36 members. Pres., J. B. Owen. V.-Pres., Mrs. E E. Overton. Sec.-Treas., Mrs. Robert Dunbar.

LEBANON. 18 members. Pres., Dixon Merritt. V.-Pres., Millard C. Kent. Sec.-Treas., Mrs. Henry Waters. Asst.-Secy., Mrs. J. C. Sellars.

ELIZABETHTON. 15 members. Pres., L. R. Herndon. V.-Pres., J. C. Browning. Secy.' Mrs. Hugh Taylor. Treas., Mrs. Ruth Hughes. Historian, Mrs. Avery W. Evans. Statistician, Mrs. L. R. Herndon.

GREENEVILLE. 10 members. Pres. (also Reporter), Mrs. Willis Clemens. V.-Pres., Alfred Irvine. Secy., Mrs. J. B. White. Treas., Mrs. Richard Nevius. Statistician, C M. Shanks.

BRISTOL. 26 members. Pres., Miss Ester Hilton. V.-Pres., Mrs. Judith Abbott. Sec.-Treas., Mrs. R. T. Krepela.

The Kingsport Chapter has not sent in information for inclusion in this report, but last December it had 22 members.

The approximate number of Tennessee-at-large members is 15, of corresponding (out-of-state) members is 77, and of subscriptions to libraries, museums, and other institutions is 30.

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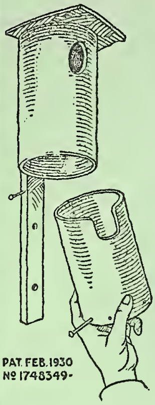

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AMERICAN EGRETS AT REELFOOT LAKE —Photo by C. F. Pickering

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THE SEASONS ON REELFOOT LAKE

By CHARLES F. PICKERING

It is the purpose of this article to present to the reader some of the birds and some of the wild-life that can be seen during the seasons of the year on Reelfoot Lake.

Truly much can be seen, and I am aware that I will omit many things that a more experienced writer would see and write about. I will not go into detail of what I have experienced, but will write in general.

Fishing and hunting in this region attracted my attention some thirty years ago and as the years passed I became aware of the wonders and the many things of interest that could be seen on Reelfoot. I started leaving my gun at home years ago and shot my birds with my camera. The ducks I have shot in the last fifteen years are not on cold storage but on film, and I can at will witness their flights, their coloring, and the surroundings in which I found them.

Each year since the Federal Government closed certain areas during the shooting season I have had permits to enter at my leisure, watch the ducks on the water and in flight. It is a wonderful experience to move about quietly and jump hundreds of several species. At times they would be so close to me both on the water and in the air that I had no need of binoculars.

The ducks soon learn—and soon is the word—that in these closed areas they are safe from the shooters. When they are flushed they will circle the area which they are in and soon alight. They seem to know its boundaries, whether it be large or small.

Anchor or drift in the lily pads if you wish, and they are all around. Travel slowly around the edges of the grass, and you can jump great numbers of Mallards, Pintail, Scaup, Teal and Shovelers, with hundreds of Coots always mixed with them.

Some years the beautiful Tree Swallows come with the ducks. I have witnessed hundreds of these Swallows suddenly swoop from the air and perch on some medium-sized cypress tree when the tree suddenly becomes a thing of beauty as they sit with their snow white breasts in contrast to the brown of the tree. It reminds one of a Christmas tree suddenly made beautiful by some magic wand.

There is no doubt but that these Swallows play in their flight. I have seen a bird take a feather high into the air, release it and hundreds encircle it as it falls slowly towards the water. Within a foot or two of the water another bird would take it and fly high again and release it, and the same performance would continue. Finally it would be allowed to strike the water and the game would be over.

One of the winter high-lights is to witness each afternoon between four and four-thirty—this time of day will be about the same from year to year—the Redwings coming in to roost for the night. The wild rice marshes at the head of the lake probably are their feeding grounds, and they come down the lake to roost in the grass for the night.

Years ago when I first witnessed this sight, I often wondered if I wasn't seeing millions of them. What I have read later confirmed my personal estimates. It has been estimated by Dunbar (1951) and Ganier (1937) that one would see in an hour's time more or less 2,000,000 Redwings, 1,000,000 Grackles, 1,000,000 Starlings, 200,000 Cowbirds and 5,000 Robins.

Their flight down the lake is precision of movement. They dive, swing to the right or left, and their patterns are perfect, no large open spaces, no ragged edge, and no stragglers. The column is always compact and at times so dense one cannot see the sky. This flight occurs again at dawn on their return to the feeding grounds, but it has not the precision of movement that it had in the afternoon.

Later on in the winter if the weather is extremely cold, most of the ducks move onto water that is not frozen, to the Mississippi River or farther South.

This is the time for the Bald Eagle to appear and the Eagles that nest on Reelfoot are joined by others coming from more northern lakes and rivers which perhaps are frozen over. These Eagles watch the few open places that are not frozen and pick up injured and dead ducks. When the lake begins to freeze, one can occasionally see from six to ten Eagles in one tree, a magnificent sight.

In recent years channels have been cut from the big open water into the arms of the lake, and at the ends of these arms goose ponds have been established. Last November I estimated a thousand Canada Geese rose in flight when I approached one pond. My pictures would have been better, I believe, if there hadn't been so many. As I did not get as close as I wished, my pictures looked more like black-birds than geese. From time to time during the day we could see flights coming in to the ponds, and these flights were always spotted with Snow and Blue Geese, the Canada however predominating.

These goose ponds are carefully watched and protected, and no shooting is allowed. A high electric fence surrounds the place and during the duck season a guard is always on watch. As a result of these precautions the goose population is increasing from year to year.

Spring of the year comes, and with it a Prothonotary Warbler for every square of grass. There are as many Song Sparrows some years as Warblers. The Prothonotary Warblers stay on, but the Song Sparrows soon leave. Before they go however, the lake is serenaded, and until one learns their song, you can imagine many water whistles being piped by as many small boys.

The Least Terns are there by the hundreds and remind one of large beautiful white butterflies as they fly and flutter over the water. They hover seemingly motionless over a spot, drop suddenly to the water and rarely miss the small fish they have seen.

Paddle around close to the saw grass, moving slowly, and you will see the Sora and Virginia Rails and the Florida and Purple Gallinules running in and out of the matted vegetation at the edge of the grass. Look closely in the thick grass, and you will find the nest of the Least Bittern.

Leave your boat and walk into the thick cane that borders some parts of the lake, and you will hear the song of the Swainson's Warbler. Hunt a little harder and probably you will find the nest.

Back in the boat again, and enter Mud Basin, and at its edge you will see the Bald Eagles' nest some eighty-five feet above the water. This nest to my knowledge is about fifteen years old. High winds blew it out in the summer of 1943, but it was rebuilt in the same tree in the fall of 1944.

Dr. Walter Spofford and I found it contained three young eaglets in May 1945. The tree was spiked one day and the next day was climbed and the young birds banded. Motion pictures were made from the water and still Kodachromes were made standing on a limb by the nest.

In May or early June we visited "Cranetown", the heronry, at the north end of Big Ronaldson Slough. "It covers an area about one quarter mile in length and about four to five hundred feet in width". (Ganier) If the lake is low you can wade in as I have done, but most of the time you will need a boat for your visit.

In this heronry your total count of nests will be about as follows: American Egret, 600; Double-Crested Cormorant, 250; Great Blue Heron, 150; Black-Crowned Night Heron, 50; Anhinga, 40. I believe I have seen this number of nests, but the figures above are from an article written by Wendell L. Whittemore (1939). These nests are loosely woven platforms from twenty to twenty-four inches across, and of different depths, and often twenty or more in one tree.

In May 1945 Dr. Walter Spofford and I missed our trail back from this heronry and went a little deeper into this wild region. We jumped several herds of deer, and found the nests of the Great Horned Owl and the Duck Hawk. The trees were climbed and photographs made of the young birds.

The lake offers a pretty sight around the first of September. The Amercan Egret, I believe, is the predominating bird about this time. Move around in the big water such as Blue Basin, count the snags and stumps protruding from its surface, and you will have the same number of Egrets, for one will be on almost every stump. You will see a number of Great Blues, but the Egret predominates. You find the greatest number on the large water, where there are many short stumps, and in late afternoon their number increases. Watch them closely and you will see them go to roost for the night in some substantial tree emerging from the water. Fifty or more will be in one tree and this number or more in another close by.

After dark and when they are all at roost, I believe it impossible to get close enough to them for flash photography. I believe it, because I have failed in my efforts a number of times. Even with an expert at the oars they will leave before you can get within fifty yards of them.

I recommend to anyone who is interested in birds and wildlife a visit to Reelfoot. You will see many things of interest and your visit will be long remembered.

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CLARKSVILLE, TENNESSEE

A VOICE IN THE NIGHT

By DIXON MERRITT

Through all the dusks and dawns of the summer of 1950, I was tantalized by a bird voice which I could not identify. And I was equally unable ever to see the bird from which it came. The call resembled that of the Nighthawk but was more querulous and much more frequently repeated. It resembled, too, the night call of the Woodcock but rang somewhat clearer. I never doubted that it was a relatively small bird and near at hand.

Not until next spring, that of 1951, did I discover that I had been looking for the wrong kind of bird in the wrong place. That discovery came one twilight when, walking across my barn pound, I heard the call coming, apparently, from a row of cedars along the west fence. At the cedars, the sound seemed as far away as ever. I followed it—like the rainbow's end—across an open pasture, up a wooded hillside, to a field on the hilltop. There half way along the field fence, on a branch of a scrawny black gum, was the bird—a Barn Owl. He was fully an eighth of a mile farther away than he sounded when I started following his call.

Crouching under the bushes along the fence, I was able to approach to within a few yards of the black gum. I listened for a quarter of an hour to the Barn Owl's calls. There was in them the eerie "kschh" which Peterson describes as a snore. In them, too, were the querulous "quack-quack" and the "ack-ack" which Bendire describes. But, preceding every call of whatever character, there was a rasping squeal, almost indistinguishable from that of a Red-tailed Hawk. This I have not seen described, or even mentioned, anywhere.

Knowing now what I was looking and listening for, the rest was easy. The Barn Owls (there were a pair of them) every twilight through the summer ranged from the hillside west of my house, mainly from the tall top of a dead persimmon, over a sedge grown area which I had long known to be heavily infested with meadow mice. By circling through the bushes, I was frequently able to approach them closely. They called incessantly. And the call was always preceded by the muted squeal that was inaudible from a distance greater than a few hundred feet.

Thus ended the fall of 1951. If the owls ever approached my barn, I was unable to see them. Through that winter, however, their presence in the barn was apparent. I found many of their regurgitated pellets in the hay loft. Pellet, however is not the word. They were fur cylinders, some of them two inches long. I was never able to find a feather in any of them.

The Barn Owls did not nest in the barn and I was never able to find where they did—until the spring of 1952. Then one night my dog barked incessantly and got me out of bed longer before daylight than my usual rising time. A great fire was burning among the big trees in the south lot. At daylight the dog and I went to investigate.

Night hunters, with an oil-soaked rag tied to the end of a pole, had set fire to an old white oak with a great cavity at the base of the wide-spreading branches. All the branches were fallen and the trunk was charred and scarred. This had been the Barn Owl's home. I heard them a few times afterward but they shortly moved away. Much that I meant to learn about them I shall never know now.

Two things, however, I did learn: the elusive ventriloquial quality of the call, always seeming much nearer than it is; and the never failing presence of the preceding muted squeal. And one thing perhaps equally important, I did not find. The "sudden wild, startling scream" which Chapman says is the only note he ever heard from a Barn Owl was never once sounded by these Barn Owls in the two years that I listened to them.

LEBANON, TENNESSEE

BIRD STUDY THROUGH THE WINTER MONTHS

By ALBERT F. GANIER, President of T. O. S.

When this issue reaches our members, the fall migration with all of its interesting highlights will be about over, and field workers will be casting about for subjects for special study during the winter months. The annual Christmas bird census must be prepared for and taken, of course, and can be sandwiched in with a project of greater continuity. While many will want to keep up with their weekly field lists, with eyes ever alert for choice "finds" along the way, still others will want to apply their observations to a special subject for study and upon which they can focus greater attention while afield. Such a project may be carried on year after year and will become more and more interesting as one finds answer to many of the mysteries of avian economy and survival. I have grouped below ten subjects that might well be considered.

1—Periodic census lists of a single area. (Once-a-week listings and tabulation will show the changes in population thru the season. This may be correlated with respect to food supply, weather changes, etc.)

2—Habitat preference. (How constant in their preference are certain birds to such habitats as woods, thickets, old fields, grasslands, stream banks, marshes, etc.?)

3—Group composition. (Many birds, for protection or because of inclination to sociability, prefer to be in mixed groups. Which birds show preferences for this association?).

4—Foods and feeding habits. (By closely watching thru the season what foods birds are eating and how they procure it, one may learn much of interest on this subject).

5—Roosting habits. (Where do birds roost in order to survive the rigors of inclement winter nights? By watching birds at dusk, and by night searching by flashlight, much can be ascertained. See articles in THE MIGRANT for March 1943 and March 1944).

6—Mortality and causes. (What are the factors that prevent birds from rapidly increasing, considering the occasional instances of some small birds having lived for ten or more years? We should learn what part is played by predators, inclement weather, food supply, disease, etc.)

7—Diurnal periods of activity. (Aside from the well-known period of early morning activity, what is the daily cycle of activity thereafter? Do birds have one or more "siestas" or rest periods? How are these affected by weather, food abundance, and season? This study would not extend into the nesting season.)

8—Behavior during rain, sleet, snow and wind. (How is this further affected by time of day, temperature, season, and approaching cold weather?)

9—Mannerism. (Before binoculars came into general use, ornithologists relied heavily upon their knowledge of bird mannerism for identification. Through the years, the writer has found this to be an extremely interesting study. When the light is poor and birds are silent, one can learn to identify them by noting their actions. For example, do they walk, hop or run; do they scratch or not; are they active or sluggish; do they feed upon the ground, in brush, weeds, tree trunks, or branches; do they sit erect or crouch; how do they carry their wings and tail; what is their manner of flight; what are their profiles and relative sizes; etc?)

10—Life history studies of a particular species, or even two or more closely related species. (Some of our members have already chosen to make such a study, preferably of one that is not rare so that it may be found regularly on field trips. Those that are permanent residents are to be preferred and the following are suggested: the two vultures, Sparrow Hawk, Killdeer, Mourning Dove, Kingfisher, Flicker, Red-bellied Woodpecker, Downy Woodpecker, woodpeckers as a group, Blue Jay, Crow, Carolina Chickadee, Tufted Titmouse, Bewick's Wren, Carolina Wren, Mockingbird, Robin, Bluebird, Starling, Cardinal, Towhee and Field Sparrow. Observers capable of doing more arduous or intensive field work may wish to choose a rarer species.)

Many other lines of study may suggest themselves after reading the above outline and field work can be profitably supplemented by research of the ornithological literature. Full written field notes should be kept and these reduced to graphic charts where practicable. The results of well carried out studies as above suggested would form the basis of valuable papers to be read at meetings or to be offered for publication in our journal.—2112 WOODLAWN DR., NASHVILLE 12, TENN., Sept. 1952.

THE ROUND TABLE

SOUTHWESTERN TENNESSEE HERONRIES.—I can look out of our fourteenth floor office window and see the site of a new heronry on Middle or Redmond Bar, four miles away and less than two miles from the Memphis city limits. Thru the courtesy of Mr. and Mrs. Merrill Schwartz, who had discovered the rookery's establishment in 1950, I was able to visit the heronry on May 17, 1952. I estimated about 750 nests in an area about 100 by 150 yards, of which 150 were probably those of the Snowy Egret and the remainder those of the Little Blue Heron. Two of the latter were chiefly white with a light slate blue on the back of the head and inner primaries. Two American Egrets were seen there. The nests were up five to twenty-five feet in small willows that were up to thirty-five feet tall. There were young in less than five nests; one-fourth of the nests were empty (some incomplete), and the remainder had one to three eggs judging from those I could see well. Less than 300 yards across water is a sandy spit of the towhead at which many pleasure boats tie up. Across the river and along the Harahan viaduct in Arkansas are a number of "pits" that used to be frequented by the late summer herons. As willows grew in these, the number of herons there diminished. This spring we have seen Snowy Egrets there: 51 in a group on May 22, 27 in four groups on May 24. Two American Egrets were seen each time. The above described heronry being four miles away, these birds may be from it. As yet I have not noticed any feeding location for the Little Blue Herons.

The presence of the Snowy Egret is interesting because it probably used to nest in this area as well as to the north before its near extermination about 1900. Our first record for this area since that time is of three at North Lake, Shelby County, on Aug. 13, 1936, seen by Pond and Clayton (Coffey, 1936. Migrant, 7:68). We might say that it has taken over fifty years for the species to recover and return here to nest.

While there may be scattered nests, I have never during the nesting season seen more than a few herons in the Ensly-Darwin bottoms and at Mud and Horn Lakes. North Lake, between these and relatively inaccessible, could harbor a colony but I doubt if there is one as mentioned by Ganier for his probable site No. 6 (1951. Migrant 22:2). His site No. 5 is given as Open Lake, but even tho I was unable to get out on this lake on June 24, 1951, I do not believe there is a heronry near it. However, there have been indications of one southeast of Golddust. On June 22, 1947, our party noticed several American Egrets crossing the Mississippi and flying into the bottoms there. Since a heronry might be at either end of the line of travel, in 1948 we went up thru Arkansas along the river, but saw no indications of a heronry. Taking the ferry across to Ashport, Tenn., we drove south to Golddust; only three American Egrets were then recorded. On June 24, 1951, we drove into the area and then I walked about a mile north along Cotton or Jones Bayou and then a mile west thru a cypress brake; a total of eight egrets were seen but there was no sign of a heronry.—BEN B. COFFEY, JR., Memphis, Tenn.

WHITE IBIS AT MUD LAKE, TENN.-MISS.—On Aug. 23, 1952, Brother Leo Thomas and I on our approach to Mud Lake noticed a White Ibis in flight over the far corner of the lake. It circled nearer, settled into the arrowhead, and later was seen in flight a second time. It was in immature plumage, being brown with white belly and rump. This is apparently the third record for Tennessee. On Sept. 2, 1935, Franklin McCamey (Migrant 1935: 52-68) saw an adult White Ibis at North Horn Lake, Tenn., a mile east northeast of Mud Lake. On July 29, 1949, four immatures were seen in Knox County by Isabel H. Tipton and Joseph C. Howell (Migrant, 1949: 50-51). In Mississippi Merritt G. Vaiden has several records for Rosedale, noting his only immature (Migrant, 1952: 2) on July 19, 1951. In Audubon Field Notes, 1951: 22, P. J. Van Huizen reports an immature, July 27, 1950, and L. McAdams four, Sept. 10, 1950, at the White River Refuge, St. Charles, Ark.—BEN B. COFFEY, JR., MEMPHIS TENNESSEE

KING RAIL NEST IN SHELBY COUNTY, TENN.—Our first definite breeding record of the King Rail for Shelby County was the finding of a nest with six eggs (incomplete) on May 25, 1952, by Ben Coffey and the writer. It was located in a very small roadside marsh on Covington Pike, .8 mile south of the Pleasant Ridge Road, where I found the species in the summers of 1950 and 1951. Our previous nest records were for Lakeview, Miss., in the Highway 61 barrow pit which was unfortunately drained about 15 years ago. The species is occasionally encountered, but suitable nesting habitat is uncommon in this vicinity.—R. DEMETT SMITH, JR., MEMPHIS, TENNESSEE

PURPLE GALLINULES NEAR McMINNVILLE.—On July 30, 1952, I found a pair of Purple Gallinules **(Ionornis martinica)** and an empty nest in the extensive marsh bordering a 12 acre lake, 11 miles northeast of McMinnville, Tenn., on Highway 70S. This spring fed lake, built about 30 years ago, has now been almost completely covered with water lilies, and deep borders of cattails and marsh grasses make it well suited to marsh birds. The Gallinules on hearing me wading through the cattails, left this cover and walked across the lily pads to the waters edge 100 feet away, feeding nervously there in full view. The nest, empty but in good condition, was found at their point of exit, built among the cattails and 30 inches above the knee-deep water. When I had completed the half circuit of the lake, I found that the pair had returned to cover.

I recorded one of these Gallinules on May 17, 1936, at a four-acre marsh near Morrison 20 miles southeast, and at Goose Pond near Pelham (35 miles south), I found a pair with nest and 6 eggs on May 26, 1935 (Migrant, 1935, 6: 23).

On the first mentioned pond I also heard a pair of King Rails at one point and farther on I flushed a single individual. Numerous empty Red-winged Blackbird nests were found but old birds and young had left with the exception of one adult female which was tending several young only a few days out of the nest. This was a very late nesting date for this species since incubation began not earlier than the first week in July. Due to the extremely hot sun prevailing on the day of my visit, the marshy border was only about half traversed, else more marsh birds, including Least Bitterns, would probably have been flushed.—ALBERT F. GANIER, 2112 WOODLAWN DR., NASHVILLE, TENNESSEE

BUFF-BREASTED SANDPIPER NEAR MEMPHIS.—On Sept. 16, 1952, at Mud Lake, Miss.-Tenn., I observed a Buff-breasted Sandpiper at 20 feet for some time, using coated 7x50 binoculars. The slim Upland Sandpiper resemblance was in contrast to the "peeps" feeding nearby. Demett Smith, Jr., and Mr. Coffey, on their return from a mud-slogging circuit of the lake, were able to study it under similar favorable conditions as the bird was as tame as any Least or other "peep". It was not seen on a return trip the next day. This is our first record for the immediate Memphis area and apparently the second for Tennessee and the third for Mississippi. Capt. Burt L. Monroe (Migrant 1944: 76) found two at the Halls Air Base, Tenn., on Sept. 19, 1943. Thomas D. Burleigh in "The Bird Life of the Gulf Coast Region of Mississippi" 1944 gives only one record, a female collected Sept. 6, 1940, on Deer Island. Not far away from this spot a group of Memphians (Floy Barefield, Alice Smith, Demett Smith, Jr., and the Coffeys) added the species to their life-list on Sept. 5, 1949, leisurely studying one on a small baseball field near the Gulfport Yacht Club. Wm. H. Deaderick (Wilson Bulletin, 1939: 265) reports it a fairly common fall transient at Hot Springs, Ark., Aug. 8 to Sept. 13 (1935, 1936) —LULA COFFEY, MEMPHIS, TENNESSEE.

A BOX SEAT WITH A PAIR OF MOURNING DOVES.—On June 30, 1952, when I returned from my vacation, I found that a pair of Mourning Doves were nesting in a purple plum tree just outside my kitchen windows. The nest was about five feet from the window and ten feet from the ground. The nest of a Mourning Dove, as you know, is an astoundly poor makeshift. This one was composed of a few twigs thrown together so loosely that I wondered if it would last until the young doves were hatched.

From the beginning, the nest was never without an occupant. When the male dove would fly in, the pair would spend much time billing and cooing. Then the female would leave the nest and the other would take over until her return.

On July 6 I noticd that neither parent was on the nest, but in it were two tiny young doves.

Some time later I realized that one parent had gone and left the other to feed the little ones, which it did several times each day. It would leave the nest and find suitable food, and on its return I observed it feeding the young by regurgitation. It followed this routine until the 15th of July when at six in the morning I noticed that the doves were gone. They had left in the night or early morning.

On August 4 the doves again returned and started billing and cooing, and it was my good fortune to view the entire process of nesting.

The original nest, to my great surprise, was not reconditioned. It seemed certain that the eggs would roll out or fall thru the few remaining twigs that were left, but they did not.

Again the nest was never left without an occupant, but as before, one parent departed and left the feeding to the other, which continued the task until suddenly it left with the children before six in the morning.—MARJORIE CLEMENS (MRS. WILLIS CLEMENS), GREENEVILLE, TENN.

DICKCISSEL NEAR ELIZABETHTON—A male Dickcissel, intermittently singing and preening while perched on a power line, was observed by my daughter Linda and me at the Depew Dairy Farm two miles east of Elizabethton at 6:30 o'clock in the evening of July 10, 1952. It was also seen on the following day. No mate was in evidence during the time we watched the bird. The territory has been checked fairly regularly the last few years for birds of various kinds in spring and summer, as well as during the other seasons, without indication, however, of the presence of the Dickcissel. In East Tennessee it has been recorded at Knoxville and Greeneville in recent years. Last year it was reported extending its range eastward. (The Changing Seasons—Audubon Field Notes—October 1951). —FRED W. BEHREND, ELIZABETHTON, TENNESSEE

HENSLOW'S SPARROW IN ELIZABETHTON AREA.—In a small plowed sedge field near Milligan College, approximately 6 miles southwest of Elizabethton, I flushed a sparrow on the rainy afternoon of October 28, 1951. It lit on a branch of a nearby small oak tree and perched motionless and silent, a gusty wind ruffling its feathers. Examination through binoculars showed the bird to have a flat head and short tail, suggestive of its being a Grasshopper Sparrow. However, the date appearing to be rather late in the season for the presence of this species, and noting streaks on breast and side of the bird of which I had a side view, I was not satisfied with this conclusion. Gradually working closer I was able to observe, in the rather dull light, the following additional details: pronounced dark stripe on the side of the crown, lighter narrow center stripe, short dark line behind the eye, well visible eye ring, olive color of side of the head and nape, paleness of the stout bill, rufous color of the lower part of the wing, yellowish-greenish color of side, some of which characteristics made identification, with the field guide in my hand, unmistakable as that of a Henslow's Sparrow. I looked at the bird for about 10 minutes, from as close as 40 feet. When finally flushed upon my closer approach, it flew low downhill and disappeared in a patch of pine trees bordering the field.

Apparently there has been no previous record of the Henslow's Sparrow in the Elizabethton area, and it seems to be a rare species in other parts of East Tennessee (Ganier MIGRANT Vol. 19, June 1948, page 28). —FRED W. BEHREND, Elizabethton, Tenn.

BACHMAN'S SPARROW AT ELIZABETHTON.—Occasional drives in recent years past an extensive area of hillside pasture, sedge fields and briar patches, interspersed with numerous small cedar trees, a short distance west of the South Side community of Elizabethton, impressed me that this might be a place in which to find Bachman's Sparrows.

I investigated in the afternoon of June 10, 1951. Soon after entering the area, I heard the song of a Bachman's Sparrow and spotted the bird in the top of a small cedar tree not far ahead. My daughter Linda, who accompanied me, was a little too eager to get close to the bird, so it flew. But we heard the song again, and found the bird sitting on a low branch of a deciduous tree. We were closer this time and could see all of the Bachman's distinctive markings. A still better view, from about 35 feet, was had later.

I did not succeed in hearing or seeing Bachman's Sparrows again until the afternoon of July 15 at the same place. Later in the afternoon, about a fourth of a mile from this location, I heard the song of a Bachman's Sparrow and felt, in view of the distance between the two places, that this was a second bird.

I looked for the species again on April 23, 1952.. Arriving in the usual place at 5:30 a.m., I heard the song of a Bachman's Sparrow while I was still in the car. The bird seemed close, and in the dim light of dawn it was spotted in the top of a briar where it sang at intervals. To judge from the June and July 1951 observations, and from this, breeding of Bachman's Sparrows in the territory referred to appears quite possible.—FRED W. BEHREND, Elizabethton, Tennessee.

NOTES ON BIRDS OF THE JACKSON, TENN., AREA.—On May 15 I found a dead Virginia Rail on a highway about ten miles west of Jackson. It checked with the description in Peterson's "Field Guide" on all the points of an adult Virginia Rail except it had gray legs while the adult Virginia Rail pictured by Peterson had flesh-colored legs. On the 17th I found two more of these Rails on the same highway about nine miles west of Jackson. These birds had been hit quite a few times and the head and bill were all that could be recognized.

At least two pairs of Barn Swallows and one pair of Rough-winged Swallows used bridges as nesting sites in the Jackson area this spring. This is the first time I have found either swallow nesting here.

Eight singing Horned Larks were found in the Jackson area in early May. At least five males were present at the Experiment Station one mile west of Jackson, two at the airport five miles west of Jackson, and one in a large field about ten miles west of Jackson. Five nests were found in early May. Two were empty but had been used earlier in the year, two had four eggs each in the nests, and one nest had four very young birds. By the middle of May the two nests with eggs had been plowed under, and there was one well-feathered young bird in the nest that had held four young and a second young bird was nearby. On June 13 I found another Lark's nest with four well-feathered young, all of which left the nest by the 16th.—KILIAN ROEVER, Jackson, Tenn.

THE 1952 BLUEBIRD POPULATION IN WARNER PARKS.—Because the 1951 population of Bluebirds (**Sialia sialis**) in Warner Parks was unusually low after the severe ice storm of January 29 to February 12, 1951 (temperature down to 13 degrees below zero), the results of the 1952 nesting season are of particular interest (1951, Migrant 22 (3) :42).

It is gratifying to find that the 1952 population of nesting Bluebirds was again normal, not quite as large as that of 1950, but almost identical with 1949. During the first nesting period, 75 percent of the 49 available nesting boxes were occupied, 194 eggs were laid, 142 hatched and 130 young fledged successfully—67 percent of the number of eggs laid. This is a high percentage of success for the Warner Parks project.

The second period of 1952 started well with 36 nesting attempts, 164 eggs. However only 89 hatched, with 47 young maturing (29 percent of the eggs). Natural predators, mainly snakes, took a considerable number. There was some interference by people. The abnormally hot and dry weather started in this period.

The third nesting period was particularly disastrous. Although predators are responsible for some of the losses, many others are directly attributable to the excessive heat and severe drouth that prevailed through June and July. In this last period there were 26 nesting attempts with 100 eggs laid; 52 hatched, from which only 21 young matured (21 percent). In 13 nests, I found unhatched fertile clutches of eggs or dead nestlings.

According to the U. S. weather reports for Nashville, June rainfall was .72 inches with temperatures reaching 90 to 106 degrees on 28 days of the month; July rainfall was 1.30 inches and temperatures for 27 days reached 90 to 107.3 degrees. Nest-boxes in open meadows were exposed to sunshine many hours of the day where temperatures reached 120 degrees. The heat and drouth doubtless affected the food supply for many trees lost foliage or died, grass became yellow and brittle, but grasshoppers remained plentiful.

For the entire season of 1952, the Bluebirds made 100 nesting attempts (same as in 1949), with a total of 458 eggs laid (456 in 1949). Of these 283 hatched, from which 198 young fledged, 43 percent of the number of eggs laid. In 1951, there had been only 57 nesting attempts (264 eggs) with 54 percent of the eggs successful.

From my trapping of breeding females, it appears that the population increase in 1952 over 1951 was due to an influx of birds from areas outside of Warner Parks. In previous nesting seasons (1938 through 1950), 432 nesting females had been trapped in their nest-boxes and banded. The smallest number taken in a season was 21 in 1944 and 1947. The largest number was 57 in 1939. Among these trapped females, each year there are some that had been banded in previous seasons in the Warner Parks boxes, varying from 21 percent in 1945 to 57 percent in 1941. But this year (1952) only 3 (12 percent) of the 26 nesting females that I trapped had been banded previously. This is the lowest percentage of banded nesting birds taken since the project was started in 1936.—AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 12, Tennessee

AUDUBON'S WARBLER, AND OTHER BIRDS, AT JOHNSON CITY. —On June 1, 1952, there came to one of my liriodendrons a warbler, very pert and a handsome male, and most accomodating, displaying his handsome plumage in easy range of our binoculars while he fed on aphids. We had ample time to study him as he feasted, and we were convinced that he was an Audubon's Warbler. He displayed additonal white plumage over that of a Myrtle Warbler, but the deciding factor was the yellow throat patch. This is the first observation of this western bird for our area, as far as our records go, but it is reported by Chapman ("Handbook of Birds of Eastern North America") to have been recorded from Minnesota, Massachusetts, and Pennsylvania.

On May 4, 1952, between 7:30 a.m. and 1:00 p.m., we listed sixty species of birds along the Watauga River. At Pickens Bridge we observed an aerial battle between a Crow and a Bald Eagle, the first time we have seen an eagle in this section. Whatever may be said about the traits of the Crow, he surely is a canny fighter. Keeping always above his sturdy victim he made dive after dive at the back of the eagle, at which attack the eagle turned over, giving to the watchers a beautiful display of the white in tail and head feathers.

A few miles below Pickens Bridge we found a female Prothonotary Warbler preparing a nesting site along the bank of the Watauga. This is our second record, for ten years ago we found a male Prothonotary some miles below the airport.—BRUCE P. TYLER and ROBERT B. LYLE, Johnson City, Tennessee.

THE SEASON

NASHVILLE—I am obliged to report a drastic June-July drought at Nashville with intense heat equaled rarely, if ever, in previous weather reports. With two exceptions June temperatures reached 90 degrees or more each day; 11 successive days were over 100 and the maximum was 107.3. After rain July 4 extreme heat and drought continued into late July. The only controlled observations of the effect of this extreme weather on nesting to come to our attention derives from Mrs. Laskey's Bluebird study in Warner Park. There was normal occupancy and good success in the first nesting periods; results of the second period were not remarkable; during the third period addled eggs and dead nestlings were found in significant numbers (see Round Table note in this issue).

Several spring notes of interest included the reports of two separate T. O. S. groups which found over 90 species in the immediate area of Nashville on May 10. This would seem to describe a significant migrating wave on that date. Forty Blue-winged Teal on Radnor Lake were termed unusual by Mr. Ganier because they are ordinarily paired by that date. It was late for twelve Shovellers. A Loon and a Pied-billed Grebe were also on the Lake. A Winter Wren seen on May 3 by Dan Schreiber and Eddie Gleaves was a very late one; only two records, May 7 and 12, are later (Migrant, 13:4. 1942). Dan had a Golden-winged Warbler on April 23 on Love's Hill. Two House Wrens in song on Apr. 23 were reported by H. C. Monk; he also had reports on Apr. 26, 27, and 29. A Shrike was incubating a set of seven eggs on Warner Park Apr. 16 (ARL); the nest was unsuccessful. Johnny Ogden, Douglas Oxford, and Mrs. Goodpasture watched a Worm-eating Warbler feed a well developed fledgling at Basin Spring May 31. As far as we know this is only the third breeding record for this region. McNish, May 7, 1922, and Ganier, June 1, 1941, each found nests with five eggs. Two other nesting records from Basin Springs are of some interest. Five partially-feathered but still downy Sharp-shinned Hawk nestlings were found June 29 twenty-two feet up in a Scrub Pine. After leaving the nest they remained in the territory as late as August 1. Sharp-shins nested in the area last year, thus establishing a new territory for this hawk whose breeding population is very small. In another group of pines close by, two Green Herons, appearing to be two or three weeks old, left their nest on July 27 (KAG). At least one of them, able to fly fairly well and well-feathered but with remnants of down still on its head, was still in the vicinity of the nest August 10.

Nesting records of our more common species are often of special interest because of their dates. In this category falls a brood of four Mockingbirds which Douglas Oxford watched leave their nest August 26. Miss Menifee Cheek banded three Cardinals that left the nest August 25. Mrs. Laskey had a Cardinal that left Sept. 5. Mrs. Bell reports Doves that hatched August 24, and Mr. Monk reports three Dove nests active as late as Sept. 11, one of these being still active on Sept. 16.

Migrations have been noticeable for some weeks. From July 19 thru

August 19 Mr. Monk recorded an unusual number of occurrences of the Upland Plover in night flights. They were recognized by their calls as they passed overhead. The night of July 23-4 a particular wave was noted. A great variety of calls from birds in night-flight have been recorded since August 2 (KAG).

Dr. Mayfield, Johnnie Ogden, and Douglas Oxford found Chestnut-sided, Magnolia, and Blackburnian Warblers at Radnor Lake on August 23. Ruby-crowned Kinglets were seen by Dan Schreiber August 29. A Bald Eagle over Radnor Lake was an exciting find for Douglas and Johnny: The same day they saw two Red-tailed Hawks, a Broad-winged, and a Marsh Hawk. An adult Little Blue Heron with two immatures were on the Lake August 30 along with six Wood Ducks, as reported by Miss Riggs. On Sept. 15 a Rose-breasted Grosbeak and a Northern Waterthrush were in the Centennial Park area (HCM). On Sept. 15 a flock of about sixty Bobolinks were feeding on Foxtail grass seeds in the Buena Vista Bottoms. (JR. and KAG).—KATHERINE A GOODPASTURE.

KNOXVILLE—Three spring records are worth noting: One Cliff Swallow on April 5 and one Tree Swallow on April 6, seen by Dick Laurence at Baum's Lake are the earliest records for these birds. A Common Loon on April 5, seen by Richard Lorenz near Concord, is the latest that one has been recorded in this area.

As did much of the country, this area had the hottest June on record and a hot July and August with an accompanying drought. None of the observations made in this area have been detailed and careful enough to determine if this unusual weather had any effect on nesting birds. One record indicating a change that began some time ago is of a nesting House Wren in Knoxville, active on May 4. 1951 was the first year that nesting House Wrens were reported in this area. Another record for this year was of a singing Wren on June 26. A Blue Grosbeak nest, second reported for this area, was found on June 20 near Boyd's Station, and a total of five of these birds were found on June 22. A third species becoming established in Knox County is the Dickcissel; on June 22 near Boyd's Station a female was seen to feed a young bird a few days out of the nest, the first indication in recent years of a nest of this species in this area.

Some other unusual nesting records probably are the result of a better knowledge of the birds of this area rather than of changes. Mrs. R. A. Monroe found two adult King Rails with six young on June 22 near Virtue. Also on June 22 a colony of about fifteen pairs of Black-crowned Night Herons was found at Jones Bend on the Blount County side of Fort Loudon Lake by J. C. Howell. On June 20 two pairs of Worm-eating Warblers each with at least two fledglings, and four other adults, were seen at Roaring Springs by J. C. Howell; this is the second nesting record for Knox County. Altho no nests or young were found, the following represent interesting records of rare or unusual birds present in the nesting season: J. B. Owen heard both Whip-poor-wills and Chuck-will's-widows calling at Beaver Ridge in northern Knox County on June 21; the former is usually recorded only as a migrant. All of these records were made by J. C. Howell: three Scarlet Tanagers at Roaring Springs on June 20; two or three singing Black-throated Green Warblers in June and July near Norris, Anderson County; a Barn Owl on August 10 on Fort Loudon Lake.

Two unusual wandering birds were a Lark Sparrow observed by Mrs. R. A. Monroe on August 18 three miles northwest of Knoxville, the second record for this area, and a Piping Plover in the same area seen on August 17 by J. C. Howell. The Plover was feeding around some shallow pools formed by a heavy rain; this is the first time it has been recorded in this area, and apparently only the second record for Tennessee.

Probably the earliest fall migrant to appear, and an early record for the species, was a Spotted Sandpiper on July 12. Large flocks of Purple Martins were seen on August 3 and 9. The first August record we have for a Coot was made on August 7, and the second for a Semipalmated Plover in this month was on the 31st. Black Terns on August 7 at Fort Loudon Lake were the earliest that we have had reported. Most warbler fall migrants arrived at their usual times. A Mourning Warbler seen on Sept. 21 by Mrs. Monroe is the second record for fall migration. On the same day a Philadelphia Vireo was seen at very close range on Clinch Mountain, Union County, by J. T. Tanner, the only fall record for this species in this area.

The Knoxville Chapter held a Fall Field Day on Sept. 21 and recorded a total of 85 species in an area of fifteen miles diameter. — JAMES A. TANNER.

GREENEVILLE—June, July and the first half of August were the driest and hottest months Greene County has had in many years. However, the unusual weather had no noticeable effect on nesting or other activities of the birds in this area.

Yellow Warblers and Blue-gray Gnatcatchers were unusually abundant during spring days. Other birds seemed to be in usual abundance.

This compiler, toward the last of August, was trimming shrubbery in his yard when he observed a Robin's nest of unusual thickness. Examination revealed a nest built on top of an older nest. The bottom nest contained egg-shell fragments and was distinctly a separate nest. Apparently both nests were built during the past summer, since the mud in the nests showed almost no weathering. This may not be unusual but had never been observed previously by him.

Dickcissels were first observed about ten years ago in the Lick Creek area near Albany by Willie Ruth Reed (now Mrs. Richard Nevius). The presence of Dickcissels in this area has been reported to THE MIGRANT the last two years. It has been assumed that they were nesting but no nests and no young could be found. Now we have three incidents of nesting to report for the past summer. On June 14, Mr. and Mrs. J. B.

White observed two adults with two immatures near the bridge across Lick Creek at Albany. One week later, June 20, the Whites returned to the same spot and saw two adults with two birds so young they could fly only a few feet at each effort. No nests were found. Also on June 20, Mr. and Mrs. Richard Nevius who live near Albany were observing a male Dickcissel in a meadow near their home. For several days he had been singing from various perches over an area having a 500 foot radius. However, he seemed to have one favorite perch and an attempt was made to locate the nest near this spot. During the effort the female was flushed but the nest could not be found. Mr. and Mrs. Nevius retreated from the spot and waited for the birds to return. After approximately 20 minutes the male returned to his perch and almost immediately the female returned and lit in a bunch of white weeds where she disappeared. The nest was found in the weeds about eight inches from the ground. It contained four bright blue eggs. Unfortunately the eggs were destroyed by agents unknown before they were hatched. The nest was constructed entirely of grass; the body of the nest was coarse while the lining was of very fine grass.

Last year, and again this year, near the last of August, large groups of Nighthawks have been observed in the Lick Creek valley. This may be a collecting area preceeding migration.

A group of 8 American Egrets were observed August 17, on Cherokee Lake.—C. M. SHANKS, Tusculum, Tenn.

KINGSPORT—The past season in Kingsport was marked by unusual heat and drought. The weather, however, seemed to have no direct relation to the birds we have observed. There were renewed activity and spring-like singing for a few days after the rains came the second week in August.

In the second week of July the Kingsport Chapter made a casual census of nesting House Wrens, reporting fifteen nesting pairs in ten yards and gardens scattered over the southeastern section of town.

Altho our observations are too few to indicate trends, we feel that the numbers of Bewick's Wrens and Bachman's Sparrows are still declining. Water birds seem to be increasing; an unusual number of Little Green Herons have been seen and Little Blue Herons have been reported in larger numbers than usual during the last of August and as late as September 9. Fishermen bring in observations of small white "cranes" and herons which we assume to be immature Little Blues. A Blue-winged Teal was seen at the local fish hatchery Sept. 7, our earliest recorded date. I have tentatively identified a bird shot the latter part of August at the local commercial fish hatchery as a Caspian Tern; the marksman said that the tern appeared with a small flight of smaller "gulls" (probably terns). Several times during the summer—before, during, or after storms with heavy rain and wind—"gulls" have come in to the ponds of the hatchery. These reports are interesting as showing the possibility of observations of species heretofore wholly unrecorded from our area. With the impounding of our two new TVA lakes we hope to record increasing num-

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bers of water birds.

Our calendar of the season shows the following dates on migrants: Bobolink, August 8 at old Pierce airport (our earliest previous date was Aug. 15 in 1949); Chestnut-sided Warbler, Aug. 24 and Sept. 4; Tennessee Warbler, Sept. 3; Cape May Warbler, Sept. 6 (first record as fall migrant); Blackburnian Warbler, Sept. 10 (earliest previous date, Sept. 12). Flocks of Robins were noticed gathering on lawns the first week in September and several large flocks of Nighthawks flying over areas where they do not occur as residents during the summer. — ANN HARNEY SWITZER.

CORRECTION

In a review in THE MIGRANT, 1951:51, it was mentioned that up to 51 Fulvous Tree Ducks were seen at Lonoke, Ark., by R. Demett Smith, Jr., and others from Sept. 16, 1950, to Oct. 4, 1950. The latter date should have been Oct. 14, 1950.—Ben B. Coffey, Jr.

NOTES HERE AND THERE

The Nashville Chapter has planned an ambitious program for 1952-53 with monthly field trips and meetings twice a month, with programs already planned for many of these meetings. Two Audubon Screen Tours are included in the schedule.

The Lebanon Chapter elected in July a new President, Millard C. Kent, and a new Secretary, Mrs. C. E. Couns.

Some of the chapters are actively engaged this fall in cooperating on various projects. Members of the Nashville and Knoxville Chapters are cooperating with many others in a widely-spread study of watching fall migration at night by means of a telescope pointed at the full moon. This project was briefly described in the last issue of THE MIGRANT. Members of all the East Tennessee chapters are visiting certain mountains again watching for migrant hawks.

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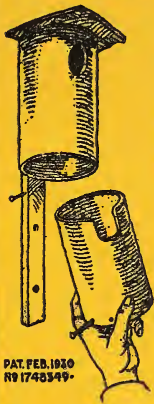

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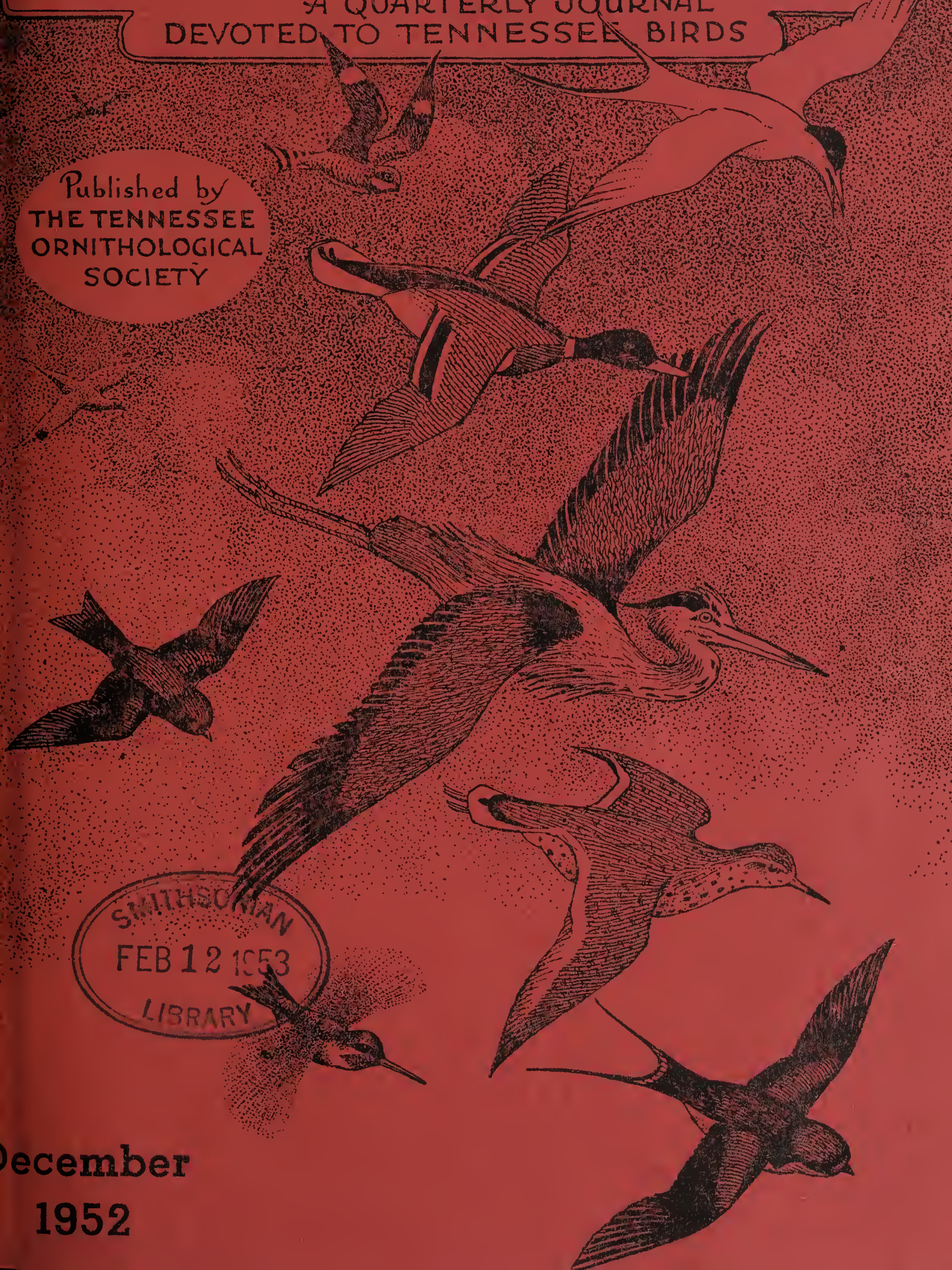

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A DECEMBER DAY IN A WATERFOWL REFUGE

By MRS. WILLIAM F. BELL

The Tennessee National Wildlife Refuge is one of of the great national refuges that have been created for the purpose of affording a resting and wintering place for migratory waterfowl. It comprises 48,000 acres of land and water. The Duck River Unit of this refuge is located on the Tennessee River (now Kentucky Lake) where the extensive Duck River bottoms join with those of the Tennessee. A dike around these bottoms keeps most of an area about eight miles long and from one to two miles wide (6000 acres) from being inundated by the waters of the lake. Such rain water as naturally flows into this "dewatering" area is pumped out during early May. Some of the land is then planted in corn, soy beans, buckwheat, and other crops liked by waterfowl and part of this is left on the land for the birds. The bottoms are full of sloughs and shallow ponds, some of which are bordered by or overgrown with willows and similar growth. This area, long known as "Big Bottom", together with the island dotted lake on two sides, is all included in the refuge. An article by Eugene Cypert on an extensive heronry that exists here may be found in THE MIGRANT, 1949, 20:41-42.

Our trip was made on Dec. 6, 1952, and had been arranged by Mr. Cypert, of Paris, who is a Biologist in the U. S. Fish and Wildlife Service. With Mrs. Cypert and his assistant Robert Easley, he met our party at Johnsonville, Tenn., at 8 a. m. with two jeeps, one a station wagon and the other a light truck. Our Nashville party consisted of Mr. A. F. Ganier, Miss Jenny Riggs, Miss Ruth Castles, Miss Frances Hager, and the writer, Mrs. William F. Bell. The weather was perfect, being clear and cool. We first drove to the Kentucky Lake shore below the new power plant to view a flock of about 100 Ring-billed Gulls resting on a muddy peninsula. We then drove several miles southward, to the pumping plant on the dike, leaving our car there because only the jeeps could crawl thru the muddy roads to be encountered a mile farther on. At the dike end, a mile from the pumping station, we left the jeeps and walked a quarter mile toward mud flats and bays on the Tennessee River side of the dike, noting flocks of several hundred ducks and Canada Geese. The ducks were mostly Mallards, Pintails, and Black Ducks. As we watched, more geese began to come in from other parts of the refuge and soon more than a thousand had congregated on a low, narrow point. Mr. Cypert told us the day before he had observed here a flock of 20 Blue Geese accompanied by one Snow Goose. Many flocks of Double-crested Cormorants, a species which nests here in summer, were flying to and fro.

In a stand of cat-tails at the edge of the pond, we found a Long-billed Marsh Wren and observed it leisurely while it reciprocated the observation. Close watch was kept on the many muddy sloughs and lake shores for late shorebirds but only a few Killdeers were seen. We gave most of our attention to the waterfowl and but little time to the small land birds of the thickets and fields, but noticed that these birds were less common than in the hills. This is perhaps because so much of the area finally becomes inundated before winter is over. A find of unusual interest was that of a Leconte's Sparrow, one or more of which were with Savannah Sparrows in some tall Johnson grass. One of the Leconte's was maneuvered into an open space where all could study its handsome plumage at twenty feet.

Our jeeps then proceeded forward, negotiating mud-holes in which an ordinary car would have bogged down, and from every slough Mallards and sometimes other ducks would arise in flight. Messrs. Cypert and Easley were using the day for one of their periodic duck counts, so we visited a number of recently flooded low places near Clear Lake and there caused the feeding birds to rise by beating the metal roof of the truck. So many ducks would take to the air that it gave the effect of the great flocks of blackbirds we sometimes see at Nashville roosts. The total number of ducks mentioned in this paper, about 35,000, are their estimates.

We were told to expect eagles and soon located the first one perched in a large tree. We viewed him with interest at a distance of 300 yards and as he took flight a few minutes later. He alit in another tree by the road and seemed so absorbed in watching a flock of Redwings on the ground below him that he permitted even closer approach. We noted his almost black underparts, the buteo-like head, and the golden-brown of his neck and crown. As he took off, he displayed ashy-white areas under his wings and a whitish tail with broad black terminal band, thus confirming our first opinion that our bird was a Golden Eagle and not an immature Bald. During the day we saw at least twelve eagles and we were only in the upper and lower thirds of the Refuge. We identified at least four of them to be Golden Eagles and most or perhaps all of the others were immature Balds. They spent a good deal of time perched in trees, sometimes two together, and at other times soared about at less than a thousand feet. One of the eagles was a partial albino, having much white on the back and shoulders as well as on the body below and about the head and tail. We hesitated to call it a Bald Eagle because it repeatedly engaged in playful flight with one of the Golden's. This may have been a courtship demonstration. Another eagle, high in air, was being heckled by a Crow which darted at it repeatedly from above but never actually struck it. We assume that the eagles have gathered here because of the presence of many thousands of ducks, and of Coots earlier in the season. The high, heavily wooded hills, which extend here for several miles along the opposite side of the river, should afford good nesting sites for Bald Eagles. The Golden Eagles were quite unexpected in this low, flat area for most of the Tennessee winter records are of those which soar about the high knobs south and east of Nashville. Because no guns are allowed in the Refuge, the eagles have become remarkably unwary and they permit observation to fine advantage.

During the afternoon we traversed the "upper bottom", this being the east third of the Refuge bordering Duck River. At the many sloughs and ponds, we flushed flock after flock of ducks and more Great Blue Herons, making twenty or more of the latter for the day. Mr. Cypert told us that an American Egret had remained during the previous winter.

Hawks were numerous, including 8 Red-tails, 3 Red-shouldered, and 6 Marsh Hawks. The most interesting of this group however was a Peregrine Falcon or Duck Hawk, seen in the upper bottoms. As we were driving along a winding road, hedged in by high Johnson grass, the Falcon darted swiftly across the road forty feet in front of us and dived into the brush after a small bird. It then emerged and flew around the next turn of the road. As we reached the turn, the falcon was seen in the road preparing his victim. As it arose again, we could clearly see the long, pointed wings, the blue back of an adult bird, and the narrow rounded tail. It re-alit in the road, then took off on our approach and disappeared.

One pond was passed in which there were three Ring-Billed Gulls, flying above a flock of 75 ducks which were mostly mergansers. We identified four of them as Hooded and two as American Mergansers before they took flight.

As the bright sunny day came to a close, we took up a station where we could see the evening flights to the roosts. Some, including the geese, took to the open water of the lake about the small islands, but more flew to the inland sloughs which were chiefly grown with weeds and willows. For over half an hour flocks were continually in the air. We had never seen so many waterfowl and it was truly a fitting end to a most exciting and satisfying day.

Mr. Ganier has kindly collaborated in the preparation of this paper and added comments on the eagles in which he was especially interested. The complete list of birds seen is as follows.

Double-crested Cormorant, 1500; Great Blue Heron, 20; Canada Goose, 1000; Mallard, 30,000; Black Duck, 3000; Baldpate, 50; Amer. Pintail, 1000; Green-winged Teal, 1; Ring-necked Duck, 100; Bufflehead, 3; Mergansers, 75 (including Hooded and American Mergansers); Turkey Vulture, 15; Red-tailed Hawk, 8; Red-shouldered Hawk, 3; Golden Eagle, 4; Bald Eagle, 8; Marsh Hawk, 7; Peregrine Falcon (Duck Hawk), 2; Sparrow Hawk, 1; Killdeer, 8; Ring-billed Gull, 103; Mourning Dove, 3; Kingfisher, 2; Flicker, 4; Pileated Woodpecker, 2; Red-bellied Woodpecker, 3; Yellow-bellied Sapsucker, 3; Downy Woodpecker, 2; Blue Jay, 6; Crow, 150; Carolina Chickadee, 10; Bewicks Wren, 2; Carolina Wren, 1; Long-billed Marsh Wren, 1; Mockingbird, 1 (in the hills); Bluebird, 5; Cedar Waxwing, 24; Loggerhead Shrike, 3; Myrtle Warbler, 1; Meadowlark, 2; Red-wing Blackbird, 5000; Rusty Blackbird, 3; Bronzed Grackle, 220; Cowbird, 50; Cardinal, 25; Goldfinch, 10; Towhee, 3; Savannah Sparrow, 6; Leconte's Sparrow, 2; Slate-colored Junco, 6; Field Sparrow, 8; White-crowned Sparrow, 3; White-throated Sparrow, 2; Fox Sparrow, 1; Swamp Sparrow, 30; and Song Sparrow, 20.

210 CARDEN AVENUE, NASHVILLE 12, TENNESSEE.

NOCTURNAL BIRD MIGRATION AT NASHVILLE, TENNESSEE

By ALBERT F. GANIER

In response to the call by Mr. Robert J. Newman (1952) of Louisiana State University, a group of Nashville T. O. S. members made a set of observations of birds passing across the full moon, during the nights of September 30 to October 4, 1952, inclusive. Due to the southward movement of a cold front in the midst of the period, these observations proved to be particularly valuable and interesting.

Because of the dismantling of the Vanderbilt University observatory in the course of constructing a new one, the equipment used in the spring of 1948 (Ganier, 1948) was unavailable, but we were fortunate, thru the courtesy of Mr. John H. DeWitt of Nashville, to be given the use of his private observatory. His telescope is a 60 power reflecting model of 180 inch focal length, 12 inch aperture, electrically operated and of English manufacture. Viewing was done thru a right-angled eyepiece, and the observers changed places every ten minutes to prevent eye-strain. About a minute was lost at each change in order to make adjustments, etc. The skies were clear thru the entire period until clouds blotted out the moon at 11 p. m., Oct 4, thus ending the observations.

The figures following the names of the participants listed below represent the number of nights attended and the number of minutes at the telescope. Mrs. Wm. B. Bell (1-41), Miss Ruth Castles (2-96), Fairman Cumming (2-63), Albert F. Ganier (5-245), Miss Helen Howell (2-45), Al. Mayfield (1-58), Mrs. Al. Mayfield (1-37), Dan Schreiber (1-31), and Edwin Schreiber (2-57).

The site of the observations was twelve miles south of Nashville, at the W. S. M. radio tower near the Franklin Pike. This was so well removed from the lights of the city that there was no likelihood of birds converging to the site because of light attraction. The surrounding country, for a mile, was nearly flat.

In order to better present the figures for study, the most pertinent data is given below in tabular form. Briefly summarized, migration was found to be sub-normal the first night, Sept. 30 (27 birds in 92 minutes net time), but on Oct. 1, there was a perceptible increase beginning at 11 p. m., portending perhaps the cold front which arrived at 4 a. m. The next night, Oct. 2, an obnormally heavy migration poured thru (234 in 197 minutes) following the arrival during the day of the cold front that had been borne in on a brisk north wind. The wind died down the next morning and that night, very few birds were flying (14 in 146 minutes). On the next and last night, Oct. 4, migration was no longer in evidence.

There being no rain during the period, it would seem that the direction and force of the wind was the chief factor which set the birds in flight. Sept. 30 was quite warm and calm with winds not over 2 m. p. h. South winds blew all day on Oct. 1, rising to 8 m. p. h. at mid-day and 6 m. p. h. at midnight. Southward flying birds had to go against this wind. After midnight (our operations had ceased) the wind reversed and at 6 a. m., it was blowing at 7 m. p. h. from the northwest and by noon had risen to 16 m. p. h. not abating until the early morning of Oct. 3. Our observations the night of Oct. 2 showed large numbers of birds riding this wind southward. Although Oct. 3 was even colder than Oct. 2, a calm had set in by nightfall and practically no birds were migrating that night. It was the same on the following night.

Date	Time of Observation Begin-End	Actual Time at Scope	Total Birds Seen	Birds per Minute	Wind in m.p.h. Begin-End	Temperature Begin-End
Sept. 30	9:30-11:15	92 min.	27	.29	S1-S2	66-63
Oct. 1	8:50-11:30	145 min.	43	.29	S3-S6	71-67
Oct. 2	8:57-12:34	197 min.	234	1.19	NW8-N7	55-51
Oct. 3	9:23-12:05	146 min.	14	.10	O-S2	50-45
Oct. 4	9:20-11:00	94 min.	1	.01	S6-S5	63-65

During the above period, a set of observations were also taken by Mrs. Amelia Laskey and Mrs. Katherine Goodpasture at the south city limits about nine miles away. I understand that their observations were similar to ours. At Memphis, the same dates were covered by T. O. S. members there and reported on by Mr. Coffey. The cold front reached there a few hours before it struck Nashville and Demett Smith and Bobby Cooper began recording the first rush of birds at 2:15 a. m. on the morning of Oct. 2. The night that followed that day was likewise their "big night". At Charlotte, North Carolina, 180 miles east-southeast of Knoxville, B. R. Chamberlain (1952) reports 450 birds in 390 minutes on the night of Oct. 3. At Thomasville, Ga., a few miles north of the Florida line, Mr. H. L. Stoddard told me in conversation that the bird-wave struck there at about the same time. The broad front of this migration is of particular interest.

At Nashville, on the night of Oct. 2 between 9:30 and 11:30, we found that birds were passing our small arc of vision at the rate of two a minute during most of that period. In agreement with Dr. George H. Lowery's recent studies (1951), we have found that the birds observed increased in numbers during the early hours of the night and tapered off after midnight. Such evidence, he says, strongly supports the theory that after an evening period of sleep and rest, the birds awaken, become restless, arise and fly for some hours, then come to earth after midnight. This poses the interesting question of how well birds can see at night. One might think that they would prefer a moonlit night, to better enable them to choose a proper place to alight when tired. However, we know from hearing migrating birds call overhead on dark and even rainy nights, that they are not at all dependent on moonlight. Thrilling accounts of a great migration in such weather, on Oct. 23, 1935, have been published by Bamberg et. al., (1935) in THE MIGRANT. A sound recording device that could magnify and record night calls thru the migration season would give a more comprehensive set of data on the times of migration altho it would not tell the direction. It is probably true too that birds are more vociferous on a dark stormy night and fly closer to the earth's surface.

Our detailed observations have been sent to Mr. Newman to be correlated with a great number of similar observations from other parts of the country and we shall look forward to his findings, particularly with reference to this October flight of migrants.

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2112 WOODLAWN DRIVE, NASHVILLE 12, TENN. December 1952.

FALL MIGRATIONS OF HAWKS IN 1952

By FRED W. BEHREND

Altho there were fewer observations this year, hawk migration observation in East Tennesee, the neighboring southwestern part of Virginia, and along the Tennessee-Carolina line produced results during the 1952 fall season comparable to those of the preceding two years. The table below shows a total of 2464 Broad-wings observed. An additional 173 of a variety of hawks migrating over this region,—Red-tailed, Red-shouldered, Sharp-shinned, Cooper's, Duck, Sparrow, and Marsh Hawks; Osprey and Bald Eagle—were listed.

In keeping with the practice of recent years, special attention was paid to the migratory movement of Broad-winged Hawks. An initial attempt was also made at correlation of simultaneous observation in different localities. Russell on Hayter's Knob tower and Behrend on Mendota tower, points about 20 miles apart on the Clinch Mountains in southwestern Virginia, teamed up from morning to afternoon of September 20 to record the number of hawks passing these points and arrive, by way of calculation, at an estimation of speed of flight. The relatively small number of hawks seen during the brief period of time devoted to this phase of observation does not warrant the drawing of any conclusions. The observers concur in that it will take observation of flights of some size and a more extended period of watching than in the present instance to accurately estimate the degree of continuity of flight along the ridge and speed of flight of the birds between the points of observation.

As in 1950 and 1951, the Clinch Mountains proved to be a major flyway for the Broad-wings. In the territory of observation as a whole, a few localities were added this Fall to those of previous years in which flights of Broad-winged Hawks occurred. This allows for further speculation concerning flight direction in particular localities. There is the example of the Knoxville group's finding as related by Tanner, that the Broad-wings observed at or near the end of the Clinch Mountains northeast of Knoxville usually left the end of the ridge in a westerly or southwesterly direction, indicating that their flight in this direction would bring them to the Cumberland Mountains in the vicinity of Rockwood. Exceedingly interesting in this respect are the observations of substantial flights by Mrs. E. M. West, reporting from Kingston, Tennessee, approximately 40 to 50 miles southwest of the terminus of the Clinch Mountains and a very few miles east of Rockwood, which seems to substantiate this conclusion.

Equally interesting is the observation by Richard Nevius of a large flight of Broad-wings near the southern end of Bays Mountain in the Tennessee Valley, north to northwest of Greeneville. Observations at the northern end of this ridge near Kingsport, in 1950 and 1951, indicate sizable flights of Broad-wings all along the narrow Bays Mountain ridge. In what direction they proceed upon reaching the relatively level country at the southern end of Bays Mountain, in the middle of the Valley, is a puzzle.

On the theory that Broad-winged Hawks, according to 1950 and 1951 observations by members of the Greeneville Chapter on Camp Creek Bald and Rich Mountain towers, follow the crest of the master chain of the Appalachians farther southwestward, investigation was extended to Max Patch, a bald, by Behrend, who spent the better part of September 22 and 23 in that locality. Even tho the number of Broad-wings seen there was comparatively small, perhaps because of unfavorable weather and wind conditions prevailing at the time, it is significant that the hawks were invariably taking a southwesterly course from that point along lower ridges toward the Great Smoky Mountains, which are approximately 10 miles distant. This would make it appear reasonable that Broad-wings migrate along the crest of the Smokies in at least their eastern part.

Flights of more moderate sizes were spotted in certain places along or near the Blue Ridge (Craggy Pinnacle and Grandfather Mt.) where concentrations of Broad-winged Hawks were observed by T. O. S. members in preceding years. Casual observations by individuals with a minor interest in bird study placed flocks of Broad-wings at the following points and late dates: an estimated 100 on Sept. 30 and Oct. 6 at Lake Phillip Nelson in the southwestern corner of Carter County in East Tennessee (Morgan) and estimated "hundreds" on Oct. 12 at Mt. Rogers in southwestern Virginia (Shields).

Investigation of the western escarpment of the Cumberland Plateau near Sparta, Tennessee (Ganier, September 25), extending from early morning to mid-afternoon, proved wholly unsuccessful, confirming like experience in other localities west of the Cumberlands in 1951.

COUNTS OF BROAD-WINGED HAWKS DURING FALL MIGRATION 1952

	A	B	C	D	E	F	G	H	I	J	K	Total
Sept. 6								1 (2)				1
Sept.20	271 (1)	65 (2)										336
Sept.21	912 (1)		104 (3)						4 (2)			1020
Sept.22				65 (6)			6 (2)					71
Sept.23				407 (6)			8 (2)					415
Sept.25					300 (7)							300
Sept.26										86 (2)		86
Sept.27			194 (4)								11 (2)	205
Sept.28						26 (8)						26
Sept.30			4 (5)									4
Total	1183	65	302	472	300	26	14	1	4	86	11	2464

KEY TO LOCALITIES:

A—Hayter's Knob Tower, Clinch Mountains, northwest of Abingdon, Va.
B—Mendota Tower, Clinch Mountains, northwest of Bristol, Tenn.-Va.
C—Clinch Mountains, northeast of Knoxville, Tenn.
D—Kingston, Tenn., approx. 40 miles west-southwest of Knoxville.

E—Bays Mountain (Bluff Mt., Marvin), north-northwest of Greeneville, Tenn.

F—Camp Creek Bald (Part of Cold Spring Mountain) Tower, on crest of Appalachians, Greene County (Tenn.) and Madison County (North Carolina).

G—Max Patch, on crest of Appalachians, Cocke County (Tenn.) and Madison County (North Carolina).

H—Hump Mountain (Yellow Mountains), Carter County (Tenn.) and Avery County (North Carolina).

I—Little Snowball Mountain Tower, west of Craggy Mountains near Blue Ridge, northeast of Asheville, North Carolina.

J—Craggy Pinnacle, northeast of Asheville, North Carolina.

K—Grandfather Mountain (Blue Ridge), near Linville, North Carolina.

KEY TO OBSERVERS—(1) Stephen M. Russell, Bristol Chap.; (2) Fred W. Behrend, Elizabethton Chap.; (3) Dr. James T. Tanner, Knoxville Chapter; (4) Dick Laurence, John Sonner, John Jacobs, Don Hurley, Hugh Davis, Knoxville; (5) J. B. Owen, Knoxville; (6) Mrs. E. M. West, Kingston, Tenn. (Chattanooga, Tenn. from November, 1952) (7) Richard Nevius, Greeneville Chapter; (8) Mr. and Mrs. Richard Nevius, Virginia Nevius, Greeneville Chapter.

It is of interest that in segments of the Southern Appalachians, other than those of Tennessee and southwestern Virginia, members of the Carolina Bird Club were signally successful in seeing good-sized flights of Broad-winged Hawks along the Blue Ridge from close to the Virginia border all the way down to near Blowing Rock, and reports from Georgia and Alabama indicate migration of Broad-wings along southernmost parts of the Appalachian Mountain system.

607 RANGE STREET, ELIZABETHTON, TENN.

BIND YOUR MIGRANTS—This issue marks the end of another "block" of 3 volumes of this magazine and the index, covering 1950-51-52, makes the 12 issues ready to bind into one book. For some years the writer has had from 30 to 40 sets bound at a Nashville bindery and is glad to say that he has a quotation from them at no advance in price. For buckram binding with strong over-sewn stitching, this price is $1.35. Add 10 cents for return post. Missing issues can be supplied for 30 cents each. In order to get this "quantity price", the magazines should be sent to me between March 1 and 15. No more interesting books can be had for your Tennessee bird library than bound volumes of THE MIGRANT. — ALBERT F. GANIER, Pres., 2112 Woodlawn Dr., Nashville 12, Tenn.

A title sheet to bind with the three volumes is being printed, and a supply will be in Mr. Ganier's hands for the sets he receives to be bound. Others wishing this sheet may get one on request to the Editor (Dept. of Zoology, Univ. of Tennessee, Knoxville, Tenn.).

ADDITIONAL BIRDS OF THE YAZOO-MISSISSIPPI DELTA

By MERRITT G. VAIDEN

This paper is the eighth in a series on the birds of this region published in THE MIGRANT (Sept. 1939; June 1940; Sept. 1940; Sept. 1943; Sept. 1947; Dec. 1948; and March, 1952).

The records and specimens mentioned in this paper are from Bolivar County. All specimens collected are in my private collection.

Mr. Allen Duvall of the Fish and Wildlife Service, Washington, D. C., made all subspecific identifications for me and I am grateful for this help.

EASTERN BROWN PELICAN **(Pelecanus occidentalis carolinensis)** On September 23, 1952, this species was flushed from a drying up borrow-pit. The bird was observed as it rested on a small mud-bar with feeding herons, egrets, and over sixty Wood Ibises. When flushed it circled and flew directly over us twice as it gained altitude. This is my second record for Bolivar County. The first was at Lake Bolivar when this lake dried completely up during the drought of 1930. Observation dates were October 5, 7, 8, and 12.

EASTERN LEAST BITTERN **(Ixobrychus c. exilis)** We have again located this bird's nesting area at Legion Lake. A male was taken on July 22, 1952.

SWAINSON'S HAWK **(Buteo swainsoni)** I can find no record of this bird having been secured in Mississippi. I have two females collected September 27 and October 19, 1952. These birds were collected nine miles south of Rosedale.

EASTERN PIGEON HAWK **(Falco c. columbarius)** Examples taken, both females, on September 17, 1948, and September 23, 1951, proved to be the eastern race.

KING RAIL **(Rallus elegans)** Since we note so much published in the literature in recent years of this bird wintering and breeding in Mississippi and Arkansas it might be of interest to give a few of my notes. I have found this bird fairly to plentifully distributed in suitable areas in the Delta areas of both states. I have birds in my collection taken in Bolivar County on January 30 and January 27 of 1945 and 1946. Five birds were taken for food on January 3, 1926. My earliest nesting record for Arkansas is May 3, 1913, and for Mississippi it is April 16, 1920.

HERRING GULL **(Larus argentaius smithsonianus)** This bird is rarely seen here on the Mississippi River or the lakes. I have an immature specimen taken by Bobby Collins one-half mile west of Rosedale, on December 25, 1947. This bird was feeding with geese along a sand-bar of the Mississippi River.

COMMON TERN **(Sterna h. hirundo)** This species has not proved a common one here in migration for I have only nine records in thirty-four years. I have two females in my collection taken on May 24, 1952, at Legion Lake.

SCISSOR-TAILED FLYCATCHER **(Muscivora forficata)** While accompanied by Mrs. Vaiden, Mrs. Klingman, and Bobby Collins, I discovered this species on May 11, 1952, as it fed in high weeds along the slope of the levee six miles south of Rosedale. Two shots were made with a small bore shotgun; both were misses. A search was made daily for ten days thereafter, but not a trace of the bird was found.

ALASKA WATER PIPIT **(Anthus spinoletta geophilus)** Specimens taken January 27, a male, and November 17, a female, in 1946 proved to be this race. I find no record of this form being taken in this State.

WORM-EATING WARBLER **(Helmitheros vermivorus)** I collected my first fall specimen on September 4, 1952, at Old River Lake. It is occasionally observed in spring migration.

BLUE-WINGED WARBLER **(Vermivora pinus)** On August 14, 1952, a female was secured at Old River Lake for my third collection.

LOUISIANA WATER-THRUSH **(Sciurus motacilla)** My second collection for Bolivar County occurred on September 3, 1952. I have no other sight records for the Delta. This bird is a fairly common breeding one in certain sections of the central and eastern Mississippi.

ATHENS YELLOW THROAT **(Geothlypis trichas typhicola)** This form has not before been reported from northern Mississippi. Mr. Duvall assigned specimens taken on September 13 and October 5, 1946, and on May 4, 1947, to this race. This seems to be an extenion of the range of this sub-species.

WESTERN MEADOWLARK **(Sturnella neglecta)** On April 26, 1952, a beautiful male of this species was taken. The flock was first located by Bobby Collins on April 21st. We have checked the area many times since the collection date and have not again located this species. Altho our local Eastern Meadowlarks were breeding at the time of collection of the Western Meadowlark, we have failed to find this bird breeding; the specimen collected however had sex organs completely developed.

EASTERN BLUE GROSBEAK **(Guiraca c. caerulea)** Altho this species is a fairly common summer resident in the central and northern sections of the State, I have heretofore had but one sight record. On April 22, 1952, a fully adult male was taken from the side of the levee three miles north of Rosedale.

INDIGO BUNTING **(Passerina cyanea)** We continue to occasionally find this species building nests in growing cotton plants. In the summer of 1951 we located nests with eggs. We found a pair building on July 17, 1952, in a cotton plant, which is rather late for this species to start nesting in this area.

PINE SISKIN **(Spinus pinus pinus)** Feeding with thousands of migratory Goldfinches, a few of these birds were found during May, 1952. They were feeding along the streets, in the city park, and in yards. No collection was made.

ALASKA FOX SPARROW **(Passerella iliaca zaboria)** A male and female taken on January 24, 1952, proved to be this race and are the first reported from Mississippi.

EASTERN SONG SPARROW **(Melospiza m. melodia)** A male and a female of this form were taken on February 15, 1952, at Legion Lake and proved to be a first record from northern Mississippi.

ROSEDALE, BOLIVAR COUNTY, MISSISSIPPI, DECEMBER 13, 1952

THE 1952 CHRISTMAS SEASON BIRD COUNTS

By T. O. S. MEMBERS

The grand total of species seen over the State in the 1952 Christmas Counts is 112, four less than the all-time record set a year ago. Two species, the Green-tailed Towhee and the Harris's Sparrow, both seen at Memphis, are new to the Christmas Counts, and the first is a new species for Tennessee. A new locality, included for the first time in our Counts, is the Duck River bottoms near Johnsonville, and the inclusion of this area greatly increases the numbers of waterfowl reported. Also Golden Eagles were reported from there, the first time in the Christmas Counts since 1939.

The richness of our winter bird life can be quickly perceived by examining the table, in which the localities are arranged as in a map, from west to east across the State. Memphis and Reelfoot Lake reported the most species, 80 and 79 respectively, and the number decreases eastward to the total of only 9 species reported from wintery Roan Mountain. An examination of the numbers of certain species, hawks, Red-bellied Woodpecker, wrens, and others, reveals a similar decrease from west to east. A few species, however, increase eastward, like Mourning Dove and Phoebe.

Some interesting points and a few obvious changes from previous years are worth mentioning. Last year a single American Egret was seen at Reelfoot Lake, the first time this species was recorded in a Christmas Count. This year 29 Egrets were reported from there. There have been other records within the past year of American Egrets wintering in Tennessee for the first known time. Pine Siskins were reported in large numbers from the Great Smokies for the first time in several years; they have been fairly common around Knoxville this winter, and 10 were reported from Nashville on the Christmas Count. The total count of Juncos is nearly twice as high this year as compared with last, and Tree Sparrows were reported from four localities this year as compared with only one in 1950 and 1951. The really high numbers for any species are those of blackbirds observed at roosts. Red-wing Blackbirds lead with a total approaching 2½ million, 2 million being the estimated number in the tremendous flocks roosting at Reelfoot Lake. Grackles came second with a total of 680,000, Starlings third with 95,000, and Cowbirds fourth with 70,000 birds observed at roosts.

In the table and descriptions that follow, the localities are listed from west to east. Under the heading "Information on the Counts" are described the areas, types of habitats covered, weather conditions, number of observers or parties, miles covered, number of species, and approximate number of individual birds observed, and the names of the observers. The species and numbers of individuals observed at each locality are listed in the table except for the report from Roan Mountain which is entirely included in paragraph for to enable including the altitudinal information. For additional information on records marked with an asterisk (*), see the paragraph containing the information on the locality.

TABLE OF 1952 CHRISTMAS BIRD COUNTS

SPECIES	Memphis	Reelfoot	Jackson	Duck River	Nashville	Murfreesboro	Great Smokies	Greeneville	Kingsport	Elizabethton
Common Loon					2					
Pied-billed Grebe	5	51			1					1
Dbl.-crested Cormorant		4500		80						
Great Blue Heron	16	87	2	132	2		1	2		
American Egret		29								
Canada Goose		4300		611						
Snow Goose				1						
Blue Goose				12						
Mallard	63	*	75	8310	130					6
Black Duck	2	27		500	2					11
Gadwall		*		52	1					
Pintail	1	3130		190	3					
Green-winged Teal		8		4						
Blue-winged Teal		17								
Baldpate		8		3						
Shoveller		82								
Wood Duck		2	3	2						
Redhead		1								
Ring-necked Duck	275	*		75	22					3
Canvas-back		16		23						
Lesser Scaup Duck	34	184			85					12
American Golden-eye		3								
Bufflehead		5		1						15
Ruddy Duck		4								
Hooded Merganser		2		9						6
Turkey Vulture	11	2	30			15		13	7	
Black Vulture	1	86	12		8			2	5	
Sharp-shinned Hawk			1					1		
Cooper's Hawk	2		1		2		2	3		
Red-tailed Hawk	26	30	3	22	7	1	3			
Red-shouldered Hawk	13	6	4	6	1					
Bald Eagle	*1	18		16						
Golden Eagle				*2						
Marsh Hawk	4	3	3	5	4			1		
Duck Hawk		2					1			
Sparrow Hawk	30	5	4	4	21	2	3	8	1	4
Ruffed Grouse							20			
Bob-white	91	9	18	5	46		21	15	15	10
Coot	5	1500		1						
Killdeer	143	7	17	2	80	7	16	8	17	
Wilson's Snipe	52		9	1	6	10				
Herring Gull	5			1						
Ring-billed Gull	178	52		44						
Mourning Dove	23	46	24	7	42	8	115	61	2	82
Barn Owl			2							
Screech Owl	2		2		3		1	1	1	1
Great Horned Owl		2	1		2		2			
Barred Owl	6	7	1	1	1		2			
Short-eared Owl	*5									

SPECIES	Memphis	Reelfoot	Jackson	Duck River	Nashville	Murfreesboro	Great Smokies	Greeneville	Kingsport	Elizabethton
Belted Kingfisher	3	14	2	—	13	1	10	4	1	5
Flicker	137	33	78	8	101	2	15	19	7	8
Pileated Woodpecker	2	7	—	3	8	—	14	3	3	—
Red-bellied Woodpecker	62	36	33	5	49	—	—	3	—	—
Red-headed Woodpecker	5	2	3	—	1	—	—	—	—	—
Yel.-bellied Sapsucker	7	8	21	1	26	1	1	1	—	2
Hairy Woodpecker	21	4	5	—	9	—	14	2	1	1
Downy Woodpecker	86	24	33	4	60	1	34	6	10	10
Phoebe	2	—	—	—	1	—	11	4	6	1
Horned Lark	169	—	494	—	49	—	6	4	—	—
Blue Jay	362	21	125	31	78	5	29	67	58	19
Raven	—	—	—	—	—	—	6	—	—	—
Eastern Crow	132	70	48	80	121	12	176	1500	72	44
Fish Crow	*1	—	—	—	—	—	—	—	—	—
Black-cap'd Chickadee	—	—	—	—	—	—	*	—	—	—
Carolina Chickadee	289	56	74	11	134	—	*256	89	47	45
Tufted Titmouse	177	68	58	8	78	—	15	34	19	17
White-brsted. Nuthatch	8	5	4	2	—	—	2	3	4	—
Red-breasted Nuthatch	—	—	—	—	—	—	19	—	—	—
Brown Creeper	9	6	8	—	13	—	13	3	2	2
Winter Wren	39	2	20	—	3	—	5	2	—	—
Bewick's Wren	—	—	3	3	7	3	1	1	—	—
Carolina Wren	110	56	36	5	77	2	46	54	18	25
Mockingbird	109	6	24	5	98	5	15	58	37	19
Brown Thrasher	24	5	24	1	—	—	—	*2	2	—
Robin	218	1	13	3	1100	46	28	158	—	5
Hermit Thrush	32	5	11	—	8	—	20	—	2	1
Bluebird	16	4	32	12	126	7	28	24	7	27
Gold'n-Crowned Kinglet	33	1	22	—	11	—	83	2	—	26
Ruby-crowned Kinglet	8	—	2	—	1	—	2	2	—	—
American Pipit	49	—	13	—	*27	—	—	—	—	—
Cedar Waxwing	26	10	22	17	10	5	3	—	20	25
Loggerhead Shrike	30	8	25	2	8	5	3	1	—	3
Starling	*	250	250	*	2780	32	29	200	—	169
Myrtle Warbler	64	27	22	—	72	7	—	14	18	53
Palm Warbler	—	—	—	—	—	1	—	—	—	—
English Sparrow	461	75	300	50	240	9	140	115	85	46
Eastern Meadowlark	515	49	305	55	93	8	40	80	5	54
Red-winged Blackbird	*	*	99	*	2	1	2	1	—	—
Rusty Blackbird	5	—	19	—	—	—	—	—	—	—
Brewer's Blackbird	4	—	*2700	—	—	—	—	—	—	—
Purple Grackle	*	500	9	*	40	—	—	1	—	—
Cowbird	*	50	63	*	1	—	—	—	—	—
Cardinal	566	130	120	36	370	16	102	159	65	86
Purple Finch	24	—	4	—	12	3	54	3	—	1
Pine Siskin	—	—	—	—	10	—	625	—	—	—
Goldfinch	489	51	66	30	213	3	205	93	9	88
Red Crossbill	—	—	—	—	—	—	36	—	—	—
Green-tailed Towhee	*1	—	—	—	—	—	—	—	—	—
Red-eyed Towhee	99	1	50	11	85	—	20	15	26	8
Savannah Sparrow	37	—	12	8	7	—	—	—	—	—
Leconte's Sparrow	*1	—	—	—	*1	—	—	—	—	—
Vesper Sparrow	—	—	4	—	*2	—	—	1	—	—

SPECIES	Memphis	Reelfoot	Jackson	Duck River	Nashville	Murfreesboro	Great Smokies	Greeneville	Kingsport	Elizabethton
Slate-colored Junco	689	177	390	6	337	16	500	49	35	159
Tree Sparrow	*3	*40	-------	4	*1	-------	-------	-------	-------	-------
Field Sparrow	83	41	27	5	139	2	200	99	36	16
Harris's Sparrow	*1	-------	-------	-------	-------	-------	-------	-------	-------	-------
Wh.-crowned Sparrow	43	54	20	6	*185	4	*4	9	3	14
Wh.-throated Sparrow	1307	131	252	45	220	2	170	32	35	75
Fox Sparrow	70	27	49	2	5	-------	2	-------	1	1
Swamp Sparrow	105	15	5	100	44	-------	2	-------	-------	3
Song Sparrow	396	86	170	16	232	6	127	71	27	40
Lapland Longspur	228	-------	-------	-------	-------	-------	-------	-------	-------	-------
Total Species	80	79	68	66	72	34	57	52	38	45

INFORMATION ON THE COUNTS

MEMPHIS, TENN.—(1946 area plus Penal Farm and northeast corner President's Island; wooded bottomlands 25%, deciduous woodlots including city parks 30%, old cottonfields, pastures, airports and farm 25%, surburban roadsides 20%). Dec. 21, 1952; 6:45 a. m. to 5 p. m. Dark, cloudy in a. m., partly cloudy in p. m.; temp. 39 to 45 to 42 degrees; wind 1-5 m. p. h. Twenty-four observers, 4 main parties, breaking up at various localities, 4 smaller parties. Total party-hours afield 86 (66 on foot, 20 in car); total party-miles 210 (52 on foot, 158 by car). 80 species, about 808, 381 individuals. Mr. and Mrs. Ben B. Coffey, Jr. (compilers), Mrs. Elizabeth Barton, Thompson Bonner, Frederick T. Carney, Mary Davant. Richmond Gill, Luther F. Keeton, Lawrence C. Kent, Edward M. King, Charles Marcus, Charles McPherson, Jr., Mrs. J. H. McWhorter, Jim McWhorter, Nelle Moore, Charles Seahorn, Jr., R. Demett Smith, Jr., Mrs. Ellen Stringer, Mr. and Mrs. M. L. Torti, Dr Wendell L Whittemore, Donald Wilson, Mrs. Rose N. Woolridge, Orval M. Wood, III.

Three species—Short-eared Owl, Green-tailed Towhee, Harris's Sparrow—are firsts for Memphis Counts, and the latter two are firsts for Statewide Christmas Counts. In addition the Green-tailed Towhee is a new species for Tennessee (see note in the Round Table). The immature Harris's Sparrow seen by Luther Keeton and Ed King is the third State record for this species; it was studied at 10 feet for fifteen minutes and flushed three times. The Short-eared Owls (R. D. S. and others) were evidently attracted by the blackbird roost. A satisfactory estimate of the number of birds in the blackbird roost could not be made on Dec. 21, so the number of birds using the roost on that date is set at 800,000 based on an estimate of 895,000 made on Jan. 3 and 4 and an estimated 10% increase over the Count date (based on size of roost area seen from above). Four observers at one-half to two miles away checking the main lines of travel recorded varying width of lines against time and rate of passage. Based on a traverse of the roost on the night of the Count by Coffey and R. D. Smith, Jr., the proportionate species estimate would be: Starling 60,000, Red-wing

150,000, Purple Grackle 550,0000 and Cowbird 40,000. The 5 Rusty Blackbirds were seen in the roost, the 4 Brewer's Blackbirds elsewhere. Other records: Fish Crow (B. C.), LeConte"s Sparrow (L. C., C. McP.), and Tree Sparrow (F. C., W. W.) ; the Bald Eagle was in adult plumage. Individual counts continued low on most small, woodland species.

REELFOOT LAKE, TENN.—(including Reelfoot National Wildlife Refuge, essentially same area as in previous years. Dec. 20, 1952. Overcast, some rain; temp. 48 to 42 degrees; wind northwest, 5 to 15 m. p. h. Eight observers in two or more parties. Total party-hours 35½, 79 species, about 2,065,000 individuals Howard Barbig (compiler), Evelyn Barbig, W. W. Fickle, Richmond Gill, Charles McPherson, George Peyton, Bro. Leo Thomas, Thomas Walker.

The numbers of the following species were estimated: Mallard 22,000; Gadwall, 11,400; Ring-necked Duck, 14,500; Red-wing Blackbird, 2,000,000, the same estimate as in previous years. The Tree Sparrows were observed at two locations by five different people.

JACKSON, TENN. (West Tennessee Experiment Station, Forked Deer River bottom and river, Cypress Creek bottom, and local ponds; river bottoms 45%, open fields 35%, roadside thickets 10%, ponds 5%, upland woods 5%. Dec. 29, 1952; 5:30 a. m. to 4:30 p. m. Morning partly cloudy, afternoon clear; temp. 30 to 52 degrees; wind SW, no wind in a. m., 8-10 m. p. h. in p. m. 3 observers in 1 party. Total party-hours 11 (8 on foot, 3 by car); total party-miles 50 (10 on foot, 40 by car). 68 species, about 6,381 individuals. Kilian Roever (compiler), Mrs. W. E. Roever, Jimmie Shaw.

In order to be postive that the blackbird flocks contained Brewer's Blackbirds, one shot was fired into a flock and three male Brewer's Blackbirds were killed.

DUCK RIVER BOTTOMS, TENN. (7½ mile radius centering at the Johnsonville steam plant and extending eastward and southward on the Tennessee National Wildlife Refuge and including the Duck River Dewatering area and the adjacent portions of Kentucky Lake, and extending westward to include the town of Camden; river bottom farm land 50%, bottomland marshes 10%, open water and shoreline 20%, urban 5%, highways 5%, brush land 5%, bottomland hardwood-bordered sloughs 5%, Dec. 21, 1952; 7:00 a. m. to 4:30 p. m. Cloudy, temp. 32 to 45 degrees; wind SE, 6 m. p. h.; ground wet but no rain fell during the day. Four observers in one party. Total party-hours 9½ (2½ by car, 7 on foot); total party-miles 33 (30 by car 3 on foot). 67 species, about 460,700 individuals. Eugene Cypert (compiler), Mary Louise Cypert, Robert Easley, Grace Wyatt.

For an account of Golden Eagles in this area, see the article about this area in this issue of THE MIGRANT. The numbers of the following species were estimated: Starling, 30,000; Red-wing Blackbird, 260,000; Purple Grackle, 130,000; Cowbird, 30,000.

NASHVILLE, TENN. (localities and terrain same as last 2 years). Dec. 21, 1952; 6:30 a. m. to 4:30 p. m. Overcast but visibility good; temp. 38 to

41 degrees; wind 5 to 10 m. p. h.; ground bare and frozen. 25 observers in 7 parties. Total party-hours 61 (45 on foot, 16 by car); total party-miles 135 (38 on foot, 97 by car). 72 species, about 7800 individuals.—B. H. Abernathy, O. C. Ault, Mrs. Wm. B. Bell, Ruth Castles, Bert Chambersc, Mrs. Ovid Collins, Jr., Albert F. Ganier (compiler), Eddie Gleaves, Mrs. E. W. Goodpasture, Mrs. K. B. Everly, Frances Hager, Helen Howell, Al. Marsh, Al. Mayfield, Geo. R. Mayfield, Larry McClain, John Ogden, Douglas Oxford, Jennie Riggs, Jas. A. Robins, Mrs. Walter Sharp, Dan Schreiber, Edw. Schreiber, Mrs. E. B. Travis, and G. B. Woodring. (members Nashville chapter T. O. S.)—All water birds were seen on Radnor (85 acre) Lake. No local bird roost in area. White-crowned Sparrows more common than usual. Vesper Sparrows identified by Riggs (first local winter record); Tree Sparrow by Bell and Ogden; Leconte's Sparrow by Ogden. Pipits were in river bottom wheatfield. Seen two days previous were Turkey Vulture 3, and within week following were Palm Warbler 1, Brown Thrasher 1, Am. Golden-eye Duck 2; also four more Red-headed Woodpeckers.

MURFREESBORO, TENN.—Dec. 25, 1952; morning. Clear to partly cloudy; temp. 50 degrees. Two observers in one party. Total party-hours about 4. 34 species, about 260 individuals.

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N. C.—(same as 1937 and subsequent years). Dec. 28, 1952; 6:30 a. m. to 6:00 p. m. Overcast below 3000 feet until noon, clear all day above 3000 feet; temp. 10 to 38 degrees; wind mostly SW, 1 to 10 m. p. h. Thirty observers in 10 parties. Total party-hours 72 (62 on foot, 10 by car); Total party-miles 172 (66 on foot, 106 by car). 57 species, about 3300 individuals. Jon Beasley, Hubert Bebb, Mr. and Mrs. Harvey Broome, Mary Ruth Chiles, William Cole, Brockway Crouch, Hugh Davis, Jr., Ronald Davis, Mr. and Mrs. Robert J. Dunbar, Keeton Griffin, Joseph C. Howell, Don Hurley, William M. Johnson, May Kedney, Richard Laurence, Mrs. Frank Leonhard, Mr. and Mrs. R. A. Monroe, S. A. Ogden, Mrs. E. E. Overton, J. B. Owen, Robert R. Scott, Arthur Stupka, James T. Tanner, Fred Taylor, Charles Thompson, Samuel R. Tipton, and D. W. Yambert.

The number of chickadees includes both Black-capped and Carolina Chickadees. The White-crowned Sparrows observed by Joseph C. Howell and Samuel R. Tipton at Pigeon Forge were the first of this species for Christmas Counts in this area.

GREENEVILLE, TENN.—(circle of 7½ mile radius about Greeneville, including Roaring Fork Creek, Bluff Mountain at Marvin, Tusculum, Afton, Shiloh, Alexander''s Beach on the Nolichuckey River, White's Mill; stream banks 30%, deciduous woods 25%, open fields and thickets40%, city suburbs 5%. December 29, 1952; 8 a. m. to 5 p. m. Clear; temp. 22 to 40 degrees; wind SW, 5 m. p. h. Nine observers in 5 parties. Total party-hours 60; total party-miles 87 (15 on foot, 72 by car). 52 species, about 3,103 individuals. Mrs. Willis Clemens, Mr. and Mrs. Alfred Irvine, Mr. and Mrs. J. B. White, Mr. and Mrs. Richard Nevius, Mr. C. M. Shanks (compiler).

One of the Brown Thrashers observed was reported by Mr. and Mrs. J. B. White; it was seen at close range near Mosheim, Tenn. The other Thrasher has been seen on a number of occasions during the early winter near the home of Mr. and Mrs. C. M. Shanks at Tusculum.

KINGSPORT, TENN. (5 mile radius centering at Civic Auditorium; woodland 40%, field and marsh 20%, residential area 10%, pasture 30%). Dec. 28, 1952; 7:30 a. m. to 5 p. m. Temp. 24 to 45 degrees; no wind or snow, some ice. Thirteen individuals in 6 parties. Total party-hours 26 (20 on foot, 6 by car). 38 species, about 1,410 individuals. C. Crane, E. McMahon, H. Young, R. Gift, W. E. Gift, Mrs. C. A. Harris, Mr. and Mrs. W. C. McHorris (compiler), Mrs. M. Pike, Mrs. J. W. Smith, Dr. and Mrs. M. J. Adams, Mrs. R. M. Switzer.

A pair of Red-shouldered Hawks were seen on the day before the Count, and a pair of Red-bellied Woodpeckers have been seen in one area all winter.

ELIZABETHTON, TENN. (same area as in previous years). Dec. 28, 1952; 7:00 a. m. to 5:30 p. m. Clear; temp. 21 to 38 degrees; wind 0 to 10 m. p. h. Fourteen observers. 45 species, about 1249 individuals. Mrs. Roberta Bashor, Mr. and Mrs. J. C. Browning, Miss May Cook, Mrs. Ebbie Evans, Mr. Ronnie Graham, Mr. and Mrs. L. R. Herndon (compiler), Mr. Robert Herndon, Mrs. Ruth Hughes, Dickie Hughes, Mr. and Mrs. John G. Luker, Mrs. Hugh L. Taylor.

ROAN MOUNTAIN, TENN.-N. C.—(from crossing of old and new roads (3750') on old road to Carver's Gap (5512'), thence on new road to parking area on Roan Mt. (6100'), return to Carver's Gap, Round Bald (5826') and Engine Gap (5600'), route of descent from Carver's Gap same as on ascent; deciduous woodland 70%, spruce and fir mixed with rhododendron 20%, grassy treeless area 10%) Dec. 21, 1952; 7 a. m. to 4:45 p. m. Drizzle and poor light till mid-morning, blanket of low clouds, dim sun through fog 10:30 to 2:30, heavy fog and again poor light rest of day, visibility no more than 200 to 400' all day; temp. 38-30-34 degrees; wind variable NW-N-NE 1-20 m. p. h.; 1 to 3" slushy snow from 4500' upward; trees above 5500' covered with light coat of ice, rime, snow. Total hours 9¾; total miles 8 (on foot). Ruffed Grouse, 4 (4950 to 5200'), Downy Woodpecker, 1 (4250'); Blue Jay, 3 (5700'); Chickadee, 5 (4100 to 4900'); Tufted Titmouse, 16 (4100 to 5700'); White-breasted Nuthatch, 1 (4450'); Red-breasted Nuthatch, 1 (5900'); Golden-crowned Kinglet, 1 (5750') Slate-colored Junco, 4 (4050 to 4200'). Total, 9 species, 36 individuals—Fred W. Behrend, Elizabethton chapter, Tennessee Ornithological Society.

ADDENDA—The following information on Christmas Counts arrived after the table had been set in type. The Lebanon Chapter held a count on Dec. 27 with five participants and found 42 species. The Bristol Chapter held a count on Dec. 28 and found 33 species. In Nashville, two Short-eared Owls were seen during the week after the count made there, and again on Jan. 11, 1953, when both were flushed from grassy fields near the river.

THE ROUND TABLE

THREE BIRDS DEAD NEAR AN AIRPORT CEILOMETER IN ILLINOIS—In view of heavy losses of birds at airport ceilometers, reported most recently in THE MIGRANT for December 1951, the following might be of interest. While stationed at Scott Air Force Base, Illinois, about 25 miles southeast of St. Louis, I checked the area around the ceilometer at the base. On the morning of Sept. 2, 1952, I found a Sora, a Red-eyed Vireo, and an unidentified warbler, freshly dead within 25 feet of each other, and 200 feet south-southeast of the ceilometer. No cause of death was apparent. There was a heavy thunderstorm the evening of Sept. 1 with rain stopping at 10 p.m. The wind averaged 15 m.p.h. with a maximum of 25 m.p.h., and was from the north, 7:30 p.m. to midnight, then shifting from the northwest. The temperature remained at 60 degrees F. If the ceilometer was instrumental in the death of the above three, there was apparently either little migration at the time or weather conditions were such that most birds simply passed thru the ceilometer beam. It might be noted that the lunar migration watch at Memphis was on duty the night of Sept. 2-3 and reported a heavy movement overhead from station opening at 7:17 p.m., Sept. 2, and apparently tapering off somewhat later in the night. The observers assumed this movement was the result of an earlier drop in temperature and a shift of wind. — ALAN ZIEGLER, Memphis.

RED CROSSBILL IN KNOX COUNTY, TENN.—Red Crossbills **(Loxia curvirostra)** regularly inhabit the spruce-fir forest of the Great Smoky Mountains and occasionally descend to the pines of lower elevations. They have been observed in Gatlinburg at the edge of the Smokies. The following observation was made at a spot about twenty-four airline miles from Gatlinburg, and is apparently the first record of a Crossbill in Knox County, Tennessee.

On the morning of Dec. 20, 1952, I heard what sounded like a Crossbill flying over my home in Little Switzerland, about four miles southeast of Knoxville. The bird returned a few minutes later, circled a few times, and perched on the top of a tall scrub pine. It called several times and then descended a few branches and appeared as if it were feeding. The pines contained many new cones, but I did not hear the sound of the bird opening any cones. Twice during this time it came into good view and I recognized the characteristic bill shape and plumage color of a Red Crossbill, apparently a young male. It soon disappeared, but about an hour later I heard the characteristic call again from a flying bird. The spot where this bird was seen is a high ridge which is about half-covered with tall scrub or Virginia pine and half with deciduous trees.—JAMES T. TANNER, Knoxville, Tenn.

GREEN-TAILED TOWHEE IN MEMPHIS, TENNESSEE—The recording of an accidental is always a pleasant suprise to any field student of bird distribution. Just such an accidental, found on the Memphis Christmas Count, Dec. 21, 1952, was identified as a Green-tailed Towhee (**Oberholseria chlorura**). A first glimpse showed rufous cap and yellowish-green in rump and tail regions. Recognizing it as different from the other and more common wintering sparrows with which it was found, a follow-up was made. Thru 10x50 coated binoculars, at 60 feet, we also noted white throat, gray breast, and yellowish-green of folded wings. The writer was accompanied by Richmond Gill and Thompson Bonner. The bird was seen again on Dec. 23 (Gill) and Dec. 25, but not on Dec. 26 when three parties searched extensively at separate times. The area, consisting of weedy roadside fields with several piles of felled trees, is just northeast of old Ensley station on the Y. & M. V. R. R. This is the northeast corner of that area often referred to as the "Ensley-Darwin bottoms" and 3 miles southwest of Riverside Park. In connection with a harbor project this area is now all within the Memphis city limits. This is a new species for Tennessee, —normally it is not found east of west Texas. There is a record of a Green-tailed Towhee at Northhampton, Mass., from late December, 1946, to mid-March, 1947 (AUDUBON FIELD NOTES, May 1947:125).—R. DEMETT SMITH, JR., Memphis Tennessee.

LECONTE'S SPARROW AND PIPITS AT NASHVILLE—In Bells Bend on the Cumberland River at Nashville on November 8, 1952, two rare birds were seen. While walking abreast through bent over Johnson grass, Johnny Ogden, Douglas Oxford, and I flushed a sparrow that instantly took cover about ten feet away. Surrounding the spot where it had disappeared, we again flushed the bird only to have it dive under the grass out of sight. On the eighth try we were able to get a good look at the bird. It was then identified by Dr. Mayfield as a Leconte's Sparrow. An hour later we sought to show our find to others in the group and again we found the sparrow in the original spot.

The afternoon of the same day in a field of sprouting rye which contained twenty-five Horned Larks, we located forty American Pipits. They were not mingling with the larks. On November 17 they and the larks were still there.—JENNIE RIGGS, Nashville, Tenn.

NO WHOA, NO WOE

This issue conclude another volume of THE MIGRANT, but now is no time to stop. Now is the time to send in 1953 dues. If you are a chapter member, chapter treasurers will collect your dues and send them in. If you do not belong to a chapter, buck up just the same and send dues to the T. O. S. Treasurer, Lawrence C. Kent, 1896 Cowden Avenue, Memphis 4, Tenn. Please inform him of any change of address.

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BOOK REVIEW

THE WHOOPING CRANE. By Robert Porter Allen. 245 p. 1952. Research Report No. 3, National Audubon Society, 1000 Fifth Ave., New York 28, N. Y. $3.00.

From the pages of this book emerges the picture of a tall, white bird walking over the marshes, head high, long legs swinging, alert and yet always dignified and imposing. Big in almost every way is the Whooping Crane, in size, in voice, in its long migrations, and yet-despite its bigness-it has met its doom or nearly so in the man with the gun. Only about thirty individuals now exist.

This report summarizes the research done by its author and others on the Whooping Crane with the aim of finding ways to preserve the species. The original status and distribution of the species have been estimated from the reports of early explorers and naturalists. Its life cycle and migrations are described as far as is known, the best known part being the behavior and food habits of cranes wintering on the Texas coast. The facts that have been learned are enough to provide the base for the beginnings of a conservation program; the last chapter of the report outlines in some detail a suggested program. The report is well illustrated by photographs and drawings.

Bob Allen, as he is known to many, has a sincere and heart-warming interest in the plight of species threatened with extinction. This interest must have supplied the drive that carried him thru months of field work, much of it uncomfortable, much of it tedious, some of it dangerous. There were, no doubt, hours of rare beauty and days of rewarding observations, but the latter especially must have been few considering all the time spent in the pursuit of a bird so rare. The report does not mention the unpleasant things that Allen went thru, but you may be sure that they were there. His interest has not led him to color the report nor to get sentimental about the tragedy of the cranes. The report describes a fine and painstaking job of research on the Whooping Crane, and we hope it was done in time. —J. T. T.

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Compiled by JAMES T. TANNER

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Cormorant, Double-crested—1950: 4, 25, 58, 75; 1951: 45, 66; 1952: 5, 26, 31, 41, 57, 59, 69.
Cowbird—1950: 28, 46, 51, 67, 76; 1951: 14, 16, 18, 26, 67; 1952: 4, 6, 11, 29, 40, 59, 68, 70, 72.
Crane, Sandhill—1952: 7.
Creeper, Brown—1950: 14, 42, 63, 76; 1951: 16, 25, 28, 67, 72; 1952: 9, 12, 13, 28, 70.
Crossbill, Red—1950: 77; 1951: 68; 1952: 70, 75.
Crow—1950: 27, 63, 76, 79, 80; 1951: 16, 17, 25, 37, 67, 70; 1952: 5, 28, 51, 58, 59, 70.
Crow, Fish—1950: 27, 76; 1951: 25, 67; 1952: 28, 70, 72.
Cuckoo, Black-billed—1950: 25, 50, 61; 1951: 24, 30, 60, 62; 1952: 3, 27.
Cuckoo, Yellow-billed—1950: 62, 53, 61, 81; 1951: 13, 17, 24, 49, 60, 62; 1952: 5, 26, 27.

Dickcissel—1950: 9, 28, 31, 52, 53; 1951: 23, 26, 47, 48; 1952: 29, 48, 53, 54.
Dove, Ground—1952: 3.
Dove, Mourning—1950: 13, 14, 26, 41, 61, 75; 1951: 12, 14, 15, 16, 19, 24, 46, 48, 61, 62, 65, 66; 1952: 6, 9, 11, 13, 14, 27, 47, 52, 59, 68, 69.
Dowitcher, Eastern — 1950: 6; 1951: 71; 1952: 24, 27.
Duck, Black — 1950: 4, 15, 58, 75; 1951: 18, 66; 1952: 2, 14, 57, 59, 69.
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Duck, Greater Scaup—1950: 59.
Duck, Lesser Scaup—1950: 5, 14, 25, 59, 75, 81, 82; 1951: 18, 19, 24, 66; 1952: 12, 13, 26, 39, 69.
Duck, Redhead — 1950: 13, 15, 59; 1951: 15, 18, 65, 66, 71; 1952: 26, 69.
Duck, Ring-necked—1950: 15, 25, 59, 75, 81, 82; 1951: 18, 66; 1952: 12, 14, 26, 59, 69, 72.
Duck, Ruddy—1950: 59; 1951: 18, 66, 71; 1952: 12, 69.
Duck, Wood—1950: 24, 50, 51, 58; 1951: 19, 24, 45, 66; 1952: 5, 26, 53, 69.
Eagle, Bald—1950: 14, 59, 72, 75; 1951: 13, 37-39, 46, 53, 66; 1952: 12, 27, 40, 41, 51, 53, 58, 62, 69, 72.
Eagle, Golden—1950: 54, 68; 1951: 24, 29, 71; 1952: 8, 58, 68, 69, 72.
Egret, American — 1950: 10, 25, 47, 51, 52, 53, 58; 1951: 1-8, 12, 18, 19, 23, 24, 47, 65, 66, 72; 1952: 5, 8, 9, 26, 41, 45, 55, 59, 68, 69.
Egret, Snowy— 1950: 25, 47, 68; 1951: 1-8, 17; 1952: 45,
Finch, Purple—1950: 13, 14, 24, 28, 67, 76; 1951: 26, 63, 68; 1952: 9, 13, 29, 70.
Flicker—1950: 25, 42, 61, 75; 1951: 16, 18, 25, 67; 1952: 6, 9, 13, 27, 59, 70.
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Flycatcher, Alder—1950: 51, 62; 1951: 23, 25.
Flycatcher, Crested — 1950: 26, 62; 1951: 25, 28, 42; 1952: 5, 27.
Flycatcher, Least—1950: 26, 49, 62; 1951: 25; 1952: 25, 27.
Flycatcher, Olive-sided—1952: 3, 25.
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Gadwall—1950: 58, 75; 1952: 12, 69, 72.
Gallinule, Florida—1951: 17, 45; 1952: 27, 41.
Gallinule, Purple—1952: 27, 41, 46.
Gnatcatcher, Blue-gray—1950: 8, 27, 53, 64; 1951: 23, 25, 48; 1952: 5, 28, 54.
Golden-eye, American — 1950: 15, 59, 75; 1951: 19, 66; 1952: 69, 73.
Goldfinch—1950: 28, 67, 77, 80; 1951: 14, 17, 26, 28, 65, 68; 1952: 5, 11, 29, 59, 70.
Goose, Blue—1950: 4, 13, 52, 68; 1951: 66, 71, 72; 1952: 40, 57, 69.
Goose, Canada—1950: 1-3, 4, 14, 15, 52, 58; 1951: 13, 18, 66; 1952: 11, 40, 57, 59, 69.
Goose, Snow—1950: 4, 13, 68; 1951: 66, 71, 72; 1952: 40, 57, 69.
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Grackle, Purple—1950: 14, 15, 28, 30, 46, 67, 76; 1951: 10, 14, 16, 17, 18, 26, 65, 67; 1952: 5, 11, 14, 17-22, 29, 40, 59, 63, 70, 72.
Grebe, Horned—1950: 15, 57; 1951: 13, 16, 18, 66, 71; 1952: 1, 9.
Grebe, Pied-billed—1950: 4, 15, 25, 57, 75; 1951: 23, 24, 45, 66; 1952: 1, 5, 13, 26, 52, 69.
Grosbeak, Blue—1950: 24, 28, 52, 54, 67; 1951: 33, 44, 46, 47; 1952: 53, 67.
Grosbeak, Evening—1950: 67; 1951: 68, 69, 71; 1952: 12, 31.
Grosbeak, Rose-breasted — 1950: 28, 67; 1951: 26, 60, 62; 1952: 7, 25, 29, 53.
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Gull, Franklin's—1950: 24, 26.
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Gull, Laughing — 1950: 24, 50; 1951: 30.
Gull, Ring-billed — 1950: 6, 12, 15, 26, 35, 60, 75; 1951: 19, 27, 30, 66; 1952: 14, 27, 30, 57, 59, 69.
Hawk, Broad-winged — 1950: 10-11, 25, 50, 59, 69-74; 1951: 13, 23, 24, 29, 30, 48, 53-57, 71; 1952: 27, 53, 62-65.
Hawk, Coopers—1950: 5, 10, 11, 13, 25, 54, 72, 73, 75; 1951: 24, 29, 46, 48, 53, 66; 1952: 6, 27, 62, 69.
Hawk, Duck—1950: 48, 60, 72; 1951:

53, 65, 66; 1952: 27, 41, 59, 62, 69.
Hawk, Marsh—1950: 5, 10, 52, 53, 60, 72, 75; 1951: 48, 53, 66; 1952: 26, 27, 53, 59, 62, 69.
Hawk, Pigeon — 1950: 12, 61; 1951: 47, 53; 1952: 66.
Hawk, Red-shouldered—1950: 25, 59, 72, 72, 73, 74, 75; 1951: 24, 48, 53, 66; 1952: 6, 13, 27, 59, 62, 69, 74.
Hawk, Red-tailed—1950: 10, 11, 25, 59, 72, 74, 75; 1951: 24, 29, 53, 66, 71; 1952: 6, 27, 53, 59, 62, 69.
Hawk, Sharp-shinned—1950: 10, 11, 12, 25, 59, 72, 75; 1951: 24, 29, 46, 53, 66, 71; 1952: 52, 62, 69.
Hawk, Sparrow—1950: 10, 25, 60, 72, 75; 1951: 17, 24, 48, 53, 66, 71; 1952: 6, 27, 59, 62, 69.
Hawk, Swainson's—1952: 66.
Heron, Black-crowned Night — 1950: 12, 58; 1951: 1-8, 19, 24, 46, 47; 1952: 11, 26, 41, 53.
Heron, Great Blue—1950: 14, 25, 58; 1951: 1-8, 12, 14, 24, 28, 47, 66; 1952: 5, 9, 26, 31, 41, 59, 69.
Heron, Green—1950: 25, 58; 1951: 1-8, 24, 27, 65, 66; 1952: 5, 26, 52, 55.
Heron, Little Blue—1950: 47, 50, 51, 52; 1951: 1-8, 12, 20, 28, 45, 47; 1952: 1, 5, 25, 45.
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Heron, Yellow-crowned Night—1950: 25; 1951: 1-8, 47; 1952: 1, 9.
Hummingbird, Ruby-throated—1950: 7, 24, 26, 53, 61; 1951: 25, 27, 49; 1952: 5, 25, 27.
Ibis, White—1950: 12; 1952: 2, 46.
Ibis, Wood—1951: 45; 1952: 2.
Jay, Blue—1950: 25, 42, 63, 76; 1951: 14, 25, 44, 67, 70; 1952: 5, 28, 59, 70, 74.
Junco, Slate-colored—1950: 14, 24, 27, 44, 67, 77, 80; 1951: 15, 16, 17, 26, 68, 70; 1952: 9, 12, 13, 29, 59, 68, 70, 74.
Kildeer—1950: 11, 25, 60, 75, 81; 1951: 13, 15, 17, 19, 24, 28, 66; 1952: 5, 13, 27, 58, 59, 69.
Kingbird, Eastern — 1950: 7, 24, 26, 62; 1951: 25, 27; 1952: 5, 27, 32.
Kingfisher, Belted—1950: 26, 61, 75; 1951: 25, 67; 1952: 5, 27, 59, 69.
Kinglet, Golden-crowned — 1950: 12, 14, 25, 64, 76; 1951: 23, 25, 67; 1952: 12, 28, 70, 74.
Kinglet, Ruby-crowned—1950: 12, 14, 15, 25, 64, 76, 80; 1951: 16, 18, 19, 25, 67; 1952: 28, 53, 70.
Kite, Mississippi—1950: 25, 50; 1951: 29, 45; 1952: 27.
Kite, Swallow-tailed—1951: 41.
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Lark, Horned — 1950: 15, 26, 37-41, 52, 53, 62, 76, 80; 1951: 13, 15, 16, 19, 25, 67; 1952: 3, 27, 49.
Longspur, Lapland — 1950: 44, 77; 1951: 13, 68, 71; 1952: 10, 71.
Longspur, Smith's—1952: 10.
Loon, Common — 1950: 25, 47, 57; 1951: 18, 65, 66, 72; 1952: 11, 26, 52, 53, 69.
Loon, Red-throated—1950: 57.
Mallard—1950: 15, 58, 75; 1951: 18, 19, 66; 1952: 14, 39, 57, 58, 59, 69, 72.
Martin, Purple—1950: 8, 13, 13, 26, 29, 54, 63; 1951: 13, 16, 25, 27, 28, 47; 1952: 6, 10, 12, 13, 28, 54.
Meadowlark, Eastern—1950: 28, 66, 74, 76; 1951: 15, 16, 26, 28, 46, 67; 1952: 5, 26, 29, 59, 70.
Meadowlark, Western—1950: 13, 50; 1951: 13, 21-22, 71; 1952: 10, 67.
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Merganser, Hooded—1950: 15, 59, 75; 1951: 18, 19, 66; 1952: 59, 69,
Merganser, Red-breasted—1950: 59; 1951: 24; 1952: 2.
Mockingbird—1950: 13, 14, 15, 27, 63, 76; 1951: 14, 15, 17, 25, 47, 67; 1952: 5, 29, 52, 59, 70.
Nighthawk—1950: 3, 6, 26, 41, 53, 61; 1951: 24, 47; 1952: 3, 5, 27, 55, 56.
Nuthatch, Brown-headed—1950: 13; 1951: 71.
Nuthatch, Red-breasted—1950: 12, 13, 14, 24, 27, 74, 76; 1951: 16, 17, 19, 19, 23, 47, 48, 65, 67, 70, 71; 1952: 11, 12, 28, 70, 74.
Nuthatch, White-breasted—1950: 27, 63, 76, 80; 1951: 17, 23, 25, 47, 67, 70; 1952: 5, 28, 70, 74.
Old-squaw—1951: 13, 18, 19, 28; 1952: 2, 10.
Oriole, Baltimore — 1950: 9, 28, 66; 1951: 26, 46; 1952: 29.
Oriole, Orchard—1950: 9, 28, 66; 1951: 19, 26, 27, 28, 46; 1952: 6, 29.
Osprey—1950: 5, 25, 60, 72; 1951: 24, 46, 53, 71; 1952: 28, 62.
Ovenbird—1950: 12, 28, 66; 1951: 26, 27, 31, 60, 61, 62; 1952: 29.
Owl, Barn—1950: 13, 26, 61; 1951: 24; 1952: 27, 42-43, 54, 69.
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1951: 24, 67; 1952: 5, 27, 69.
Owl, Great Horned—1950: 14, 26, 61, 75; 1951: 12, 13, 63, 66; 1952: 12, 41, 69.
Owl, Screech—1950: 12, 26, 61, 75; 1951: 24, 28, 65, 66; 1952: 5, 27, 69.
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Phoebe—1950: 12, 26, 62, 76; 1951: 25, 28, 42, 67; 1952: 11, 26, 27, 32, 68, 70.
Pintail—1950: 4, 15, 58; 1951: 19, 66; 1952: 14, 39, 57, 59, 69.
Pipit, American—1950: 8, 11, 13, 64, 76; 1951: 14, 67, 71; 1952: 67, 70, 73, 76.
Plover, Black-bellied—1950: 5; 1952: 32.
Plover, Golden—1950: 13, 21-23; 1951: 13, 23, 45; 1952: 9, 24, 27, 32.
Plover, Piping—1952: 54.
Plover, Semipalmated — 1950: 5, 24, 25, 60; 1951: 17, 24; 1952: 27, 54.
Plover, Upland — 1950: 13, 51, 60; 1951: 18, 23, 27, 45, 47; 1952: 53.
Rail, King—1950: 25; 1951: 13, 24, 27; 1952: 9, 27, 46, 53, 66.
Rail, Sora—1950: 5, 25, 45, 60, 81; 1951: 19, 24, 62, 63; 1952: 27, 41, 75.
Rail, Virginia—1950: 45, 50, 52, 81; 1951: 63; 1952: 41, 49.
Raven, Northern—1950: 27, 63, 73, 76, 80; 1951: 25, 67, 70; 1952: 25, 28, 70.
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Redstart—1950: 28, 53, 66; 1951: 26, 31, 41, 43, 60, 62; 1952: 29, 32.
Robin—1950: 13, 14, 27, 43, 63, 76, 80; 1951: 14, 16, 25, 28, 46, 67; 1952: 6, 11, 28, 40, 54, 56, 70.
Sanderling—1950: 6.
Sandpiper, Buff-breasted—1952: 47.
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Sandpiper, Pectoral—1950: 6, 11, 13, 26, 51, 68; 1951: 17, 24, 28, 45, 48, 71; 1952: 9, 27.
Sandpiper, Red-backed—1950: 5, 11, 24, 26.
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Sandpiper, Solitary—1950: 5, 26, 41, 52, 60; 1951: 17, 24, 45; 1952: 27.
Sandpiper, Spotted—1950: 5, 25, 52, 60; 1951: 17, 24, 45; 1952: 6, 27, 54.
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Sandpiper, White-rumped—1950: 50; 1952: 10.
Sapsucker, Yellow-bellied—1950: 62, 75; 1951: 15, 28, 67; 1952: 27, 59, 70.
Scoter, Surf—1951: 33.
Shoveller—1950: 5, 13, 58; 1951: 45, 66; 1952: 39, 52, 69.
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Siskin, Pine—1950: 13, 24, 28, 67, 76; 1951: 14, 16, 17, 18, 18, 26; 1952: 11, 13, 67, 68, 70.
Snipe, Wilson's—1950: 13, 14, 14, 15, 25, 60, 75; 1951: 24, 62, 66, 71; 1952: 9, 14, 24, 27, 69.
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Sparrow, Chipping—1950: 13, 24, 67; 1951: 14, 18, 23, 26, 31, 47; 1952: 6, 11, 12, 14, 29.
Sparrow, English—1950: 28, 31, 66, 76; 1951: 26, 28, 67; 1952: 29, 70.
Sparrow, Field—1950: 29, 32, 68, 71; 1951: 16, 27, 31, 68; 1952: 5, 13, 26, 29, 59, 70.
Sparrow, Fox—1950: 15, 29, 68, 77; 1951: 16, 27, 68, 72; 1952: 9, 29, 59, 67, 70.
Sparrow, Grasshopper—1950: 9, 28, 44, 52, 67; 1951: 20, 26, 47, 60; 1952: 10, 29.
Sparrow, Harris—1952: 68, 70, 71.
Sparrow, Henslow's—1952: 48.
Sparrow, Lark—1950: 51; 1951: 46, 48; 1952: 54.
Sparrow, LeContes — 1951: 68, 71; 1952: 58, 59, 70, 72, 73, 76.
Sparrow, Lincoln—1950: 29, 51, 68; 1951: 27; 1952: 29.
Sparrow, Pine-woods—1950: 28, 32, 53, 54, 67; 1951: 26, 49; 1952: 6, 29, 49, 55.
Sparrow, Savannah—1950: 28, 52, 67, 77; 1951: 18, 19, 26, 68; 1952: 10, 14, 29, 58, 59, 70.
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Sparrow, Song—1950: 29, 68, 77, 80; 1951: 16, 27, 31, 68, 70; 1952: 13, 29, 40, 59, 67, 70.
Sparrow, Swamp—1950: 29, 46, 68, 77; 1951: 27, 68, 72; 1952: 29, 59,

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Sparrow, Tree—1950: 77, 80; 1951: 18, 65, 68; 1952: 70, 72, 73.
Sparrow, Vesper—1950: 28, 51, 54, 67, 77; 1951: 15, 26, 49, 68; 1952: 10, 14, 29, 70, 73.
Sparrow, White-crowned—1950: 15, 29, 52, 68, 77, 78; 1951: 16, 19, 27, 65, 68; 1952: 13, 29, 59, 70, 73.
Sparrow, White-throated — 1950: 12, 15, 29, 52, 68, 77; 1951: 13, 16, 19, 23, 27, 65, 68; 1952: 9, 13, 29, 59, 70.
Starling—1950: 27, 64, 76; 1951: 12, 14, 15, 16, 25, 28, 43, 65, 67, 72; 1952: 11, 28, 40, 68, 70, 71.
Swallow, Bank—1950: 7, 26, 51, 62; 1951: 25, 46; 1952: 28.
Swallow, Barn—1950: 8, 26, 51, 52, 54, 62; 1951: 13, 25, 46; 1952: 6, 28, 49.
Swallow, Cliff—1950: 8, 26, 62; 1951: 25, 31, 46; 1952: 28, 32, 53.
Swallow, Rough-winged—1950: 8, 26, 51, 53, 62; 1951: 13, 19, 25, 46; 1952: 5, 28, 49.
Swallow, Tree—1950: 7, 26, 51, 67; 1951: 13, 25, 28; 1952: 28, 39, 53.
Swift, Chimney — 1950: 3, 7, 17-21, 26, 61; 1951: 13, 25, 28; 1952: 5, 27.
Tanager, Scarlet—1950: 28, 51, 67; 1951: 26, 46, 60, 62; 1952: 29, 54.
Tanager, Summer—1950: 28, 67; 1951: 17, 26, 47, 60, 63; 1952: 5, 29.
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Tern, Black—1950: 6, 50, 61; 1951: 12, 18, 24, 27; 1952: 6, 27, 54.
Tern, Caspian—1950: 50, 51; 1951: 12; 1952: 32, 55.
Tern, Common—1950: 6, 61; 1951: 18; 1952: 66.
Tern, Forsters—1950: 61.
Tern, Least—1950: 6, 61; 1951: 12, 45; 1952: 6, 27, 40.
Thrasher, Brown — 1950: 13, 27, 63; 1951: 15, 16, 25, 46, 49, 59, 60, 67; 1952: 5, 11, 12, 13, 26, 28, 70, 73.
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Thrush, Wood—1950: 27, 63; 1951: 25, 31, 60, 62, 63; 1952: 5, 28.
Titmouse, Tufted—1950: 27, 63, 76, 80; 1951: 15, 16, 24, 42, 49, 67, 70; 1952: 5, 9, 28, 70, 74.
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Veery—1950: 27, 43, 63; 1951: 25; 1952: 4, 28.
Vulture, Black—1950: 25, 59, 72, 75; 1951: 24, 29, 66; 1952: 6, 7, 10, 27, 69.
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Vireo, Philadelphia — 1950: 27, 64; 1951: 25, 28, 60, 62; 1952: 4, 54.
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Vireo, White-eyed — 1950: 4, 27, 64; 1951: 25, 60, 62; 1952: 5, 28.
Vireo, Yellow-throated—1950: 27, 64; 1951: 25, 31, 60, 62; 1952: 5, 28.
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Warbler, Bay-breasted—1950: 28, 65; 1951: 26, 49, 60, 62; 1952: 28, 32.
Warbler, Black and White—1950: 8, 12, 27, 51, 64; 1951: 26, 31, 41, 60, 62, 63; 1952: 5, 28.
Warbler, Blackburnian—1950: 28, 51, 65; 1951: 26, 49, 60, 62; 1952: 28, 32, 53, 56.
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Warbler, Hooded—1950: 28, 66; 1951: 26, 31, 41, 62; 1952: 6, 25, 29.
Warbler, Kentucky — 1950: 28, 66; 1951: 26, 29, 31, 41, 62; 1952: 6, 21.
Warbler, Lawrence's—1952: 8.
Warbler, Magnolia—1950: 9, 27, 65; 1951: 13, 18, 26, 28, 47, 49, 60, 62, 63, 72; 1952: 28, 32, 53.
Warbler, Mourning — 1950: 43, 66; 1951: 23, 26, 28, 60; 1952: 29, 32, 54.
Warbler, Myrtle—1950: 12, 13, 14, 14, 15, 28, 65, 76; 1951: 13, 14, 16, 18, 23, 26, 28, 67; 1952: 13, 28, 59, 70.
Warbler, Nashville—1950: 9, 24, 27, 54, 65; 1951: 26, 27, 60, 72; 1952: 4.
Warbler, Orange-crowned—1950: 15, 29, 65; 1951: 47, 62, 70; 1952: 10.
Warbler, Palm—1950: 11, 14, 28, 54, 65; 1951: 16, 20, 26, 60, 62; 1952: 29, 32, 70, 73.
Warbler, Parula — 1950: 9, 27, 65; 1951: 26, 40, 60; 1952: 6, 28.
Warbler, Pine—1950: 13, 26, 65, 76; 1951: 16, 26, 28, 31, 40, 41, 62; 1952: 13, 28.
Warbler, Prairie — 1950: 9, 28, 65; 1951: 26, 31, 41; 1952: 5, 26, 29, 32.
Warbler, Prothonotary—1950: 52, 53, 54, 64; 1951: 26, 40, 48; 1952: 6, 25, 28, 40, 51.
Warbler, Swainson's — 1950: 27, 49, 68; 1951: 62; 1952: 41.
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Warbler, Wilson's—1950: 9, 54, 66; 1951: 26, 60, 72.
Warbler, Worm-eating — 1950: 27, 43, 52, 64; 1951: 26, 40, 41, 47; 1952: 28, 52, 53, 67.
Warbler, Yellow—1950: 9, 27, 65; 1951: 26, 27, 31, 40; 1952: 6, 28, 32, 54.
Warbler, Yellow-throated—1950: 28, 49-50, 68; 1951: 26, 28, 31, 41, 44, 62; 1952: 6, 28.
Water-thrush, Louisiana—1950: 9, 28, 66; 1951: 15, 16, 21, 40, 41; 1952: 11, 29, 67.
Water-thrush, Northern—1950: 9, 24, 28, 43, 52, 66; 1951: 26, 28, 60, 62; 1952: 24, 25, 29, 53.
Water-turkey—1951: 12; 1952: 41.
Waxwing, Cedar—1950: 14, 14, 15, 25, 53, 64, 76, 78; 1951: 14, 17, 25, 47, 67; 1952: 28, 59, 70.
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Woodcock—1950: 13, 15, 52, 60; 1952: 2, 14.
Woodpecker, Downy — 1950: 26, 42, 62, 76, 80; 1951: 15, 16, 25, 67, 70; 1952: 5, 9, 27, 59, 70, 74.
Woodpecker, Hairy—1950: 26, 42, 62, 76; 1951: 25, 28, 67; 1952: 5, 9, 29, 70.
Woodpecker, Pileated—1950: 26, 61, 75; 1951: 15, 25, 28, 48, 49, 67; 1952: 5, 9, 13, 26, 27, 59, 70.
Woodpecker, Red-bellied — 1950: 26, 61, 75; 1951: 16, 25, 67; 1952: 5, 9, 13, 26, 27, 59, 68, 70, 74.
Woodpecker, Red-headed—1950: 26, 61, 75; 1951: 16, 17, 25, 27, 43, 48, 67; 1952: 27, 70, 73.
Wren, Bewicks—1950: 27, 43, 54, 63, 76; 1951: 14, 25, 42, 49, 67; 1952: 6, 11, 28, 55, 59, 70.
Wren, Carolina—1950: 14, 27, 54, 63, 76; 1951: 15, 16, 17, 25, 31, 42, 47, 49, 67, 70; 1952: 5, 9, 28, 30, 59, 70.
Wren, House—1950: 12, 27, 42, 52, 54, 63, 76, 77; 1951: 12, 25, 33, 47, 49, 65, 67; 1952: 25, 28, 52, 53, 55.
Wren, Long-billed Marsh — 1950: 8, 46, 54, 63; 1951: 25, 60, 67; 1952: 10, 28, 58, 59.
Wren, Short-billed Marsh—1950: 8, 14, 27, 51, 63; 1951: 12, 25, 47, 60, 67; 1952: 28.
Wren, Winter—1950: 12, 27, 42, 43, 63, 74, 76; 1951: 25, 67; 1952: 12, 52, 70.
Yellowlegs, Greater—1950: 5, 11, 26, 60; 1951: 17, 23, 24, 71; 1952: 9, 27.
Yellowlegs, Lesser—1950: 5, 11, 26, 52, 60; 1951: 17, 24, 45, 71; 1952: 9, 27.
Yellow-throat—1950: 4, 28, 46, 66, 76, 77; 1951: 12, 26, 27, 31, 41, 60, 62, 63, 67; 1952: 5, 29, 67.

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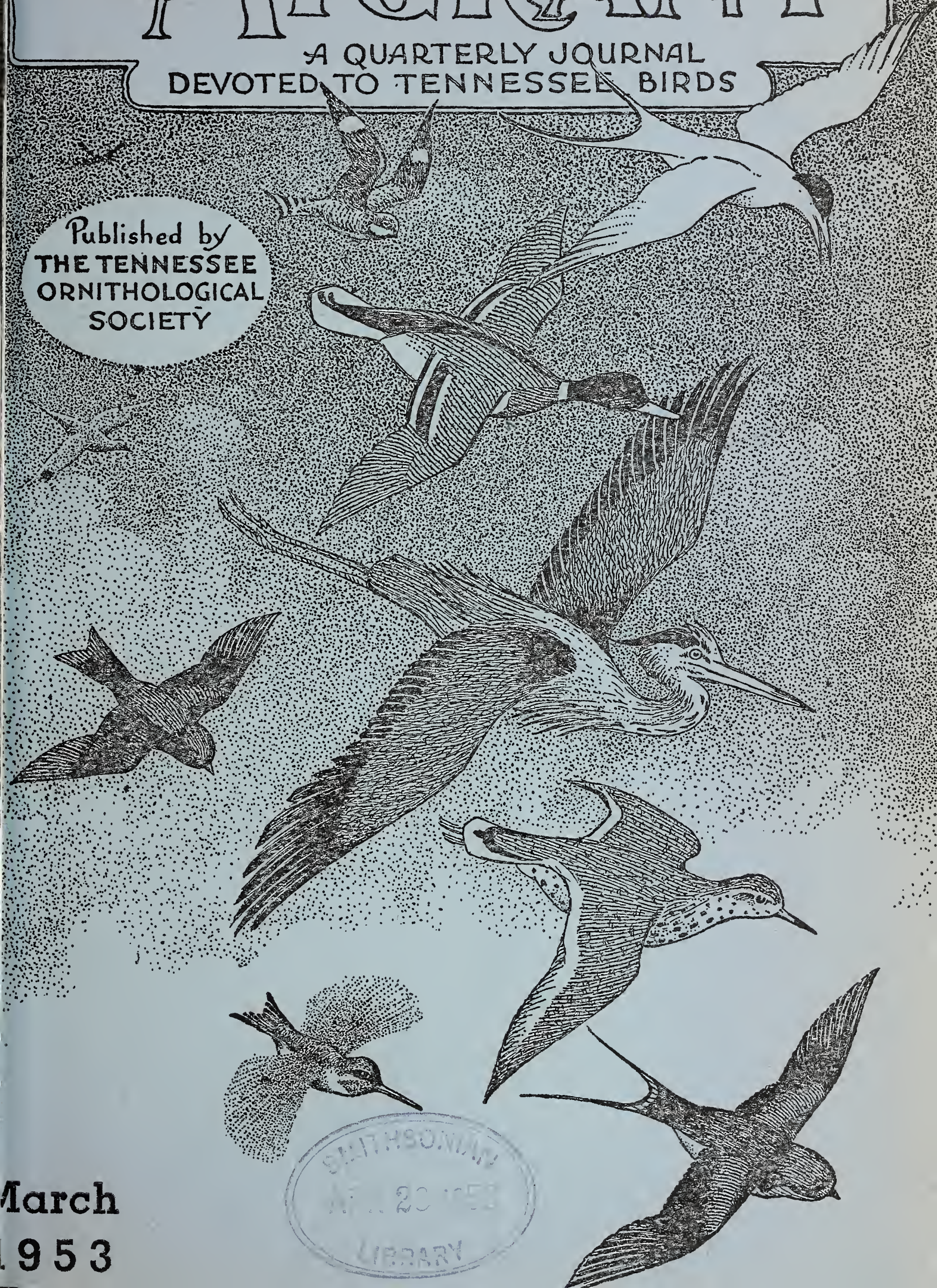

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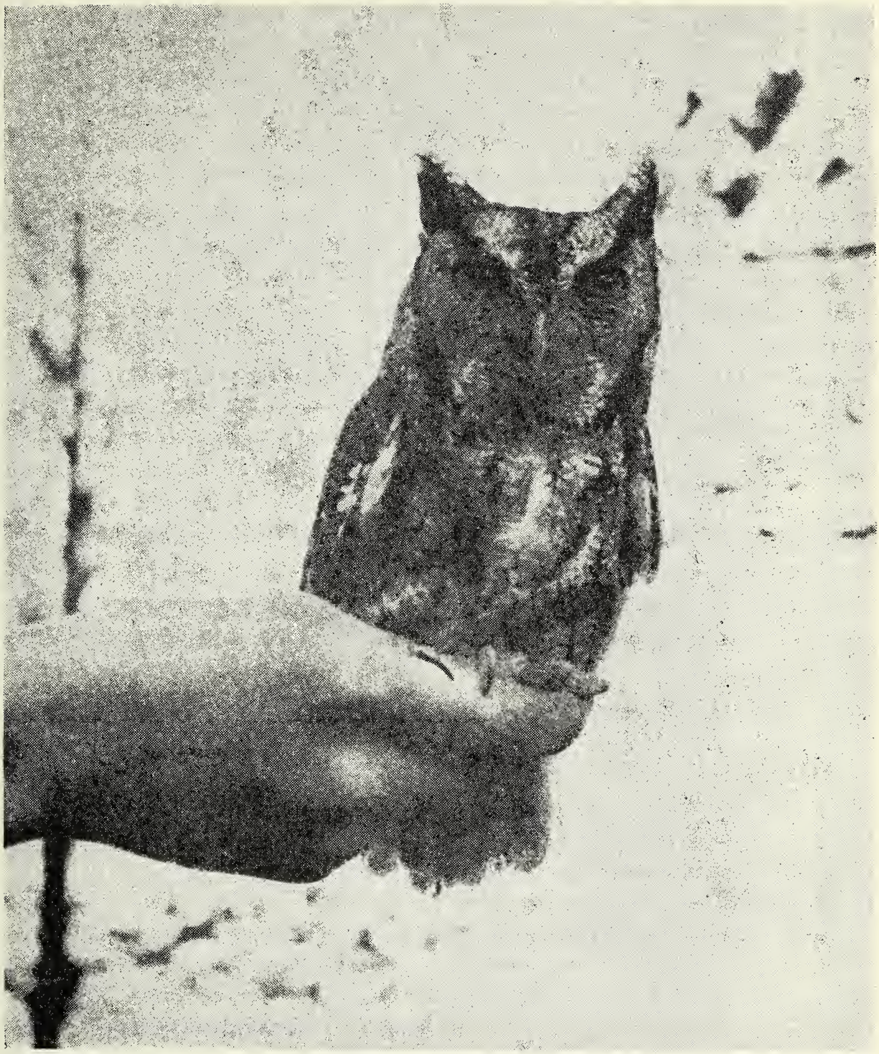

SCREECH OWL

This Screech Owl was banded as an adult on Feb. 28, 1948, at Memphis, Tenn., and returned to roost in the same box at intervals until April 10, 1950.

—Photo by JOHN J. O'CALLAGHAN

THE MIGRANT

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SOME NOTES RELATING TO THE MORTALITY OF SCREECH OWLS IN GREAT SMOKY MOUNTAINS NATIONAL PARK

By ARTHUR STUPKA

Over a fifteen year period beginning in December, 1936, the writer examined a total of 41 Screech Owls which had been killed by automobiles along highways in or near Great Smoky Mountains National Park. My primary interest in these birds was in analyzing their stomach contents; a record was also kept of where and when the owl was found and the color-phase represented. Although most of these birds were found by the writer, some were brought in by wardens, rangers, and other people. More than half the number were discovered within a few miles of Gatlinburg. It would be interesting to know how many additional Screech Owl carcasses were removed from the roads and vicinity by Crows and by such mammals as foxes, bobcats, opossums, skunks, dogs, and house cats. In the stomach of an opossum which I examined in this area in November, 1938, were the remains of a Screech Owl.

In addition to the 41 dead owls which were handled, 28 others were observed sufficiently well during this period to determine their coloration. Of the total of 69 Screech Owls, 56 were of the red phase and 13 of the gray phase—a ratio of 4 red to 1 gray.

One might assume that the mortality of these non-migratory birds would prove to be proportional to the amount of automobile travel over the roads of this area—at least to some degree. However, a comparison of the park's travel figures, by months, with the numbers of Screech Owls killed during these months, reveals a lack of correlation so complete that one is forced to seek elsewhere for a possible explanation of why the birds are killed more frequently at one time of year than another.

Using official figures for 1950 as a basis for determining the percentage of park travel, by months, we find that whereas 70 percent of the travel took place in the five months' period, April through August, only 5 percent of the Screech Owls were found during that time. No owls were found during the May—June—July period when 42 percent of the travel takes place. Whereas only 26 percent of the travel comes in the five-month interval of September through January, 85 percent of the dead birds were discovered during that time. Altogether 35 of the 41 owls were found in the five month interval of September through January while only six were found in the seven months period of February through August. October, with 14 birds, was by far the month of greatest mortality. Following in order came January, 7 birds; December, 6 birds; September and November, 4 each; February and March, 2 each; April and August, 1 each; and, as already stated, no birds in May, June and July. If we group the 41 dead owls according to seasons, we find 3 in Spring (March-May), 1 in Summer (June-August), 22 in Autumn (September-November), and 15 in Winter (December-February).

Remains of food were found in 39 of the 41 stomachs. Based on these 39 specimens, the percentage of owls with one or more insects in the stomach was 85; spiders, 33; other arthropods (centipedes, millipedes, and crayfish),23; small mammals, 15; and small bird, salamanders, and earthworms, 2½ percent each. (Insects occurred in 33 of the 39 stomachs; spiders, in 13; other arthropods, in 9; small mammals, in 6; and small bird, salamanders, and earthworms in 1 each). A Screech Owl which I found near Gatlinburg on the morning of January 19, 1951, had eaten 4 red-backed salamanders, 4 spiders, 2 earthworms, 8 centipedes, 1 millipede, 5 carabid beetles, and 14 noctuid larvae resembling army or cut worms. No other specimen had taken such a variety of food, although there were two instances of owls having consumed a greater number of individuals. One of these owls had eaten 37 noctuid larvae, 2 spiders, and 2 centipedes, while another had taken 27 noctuid larvae, 10 carabid beetles, 3 spiders, and 1 millipede. One might raise the question as to whether a bird with so much food in its stomach would be handicapped in its attempt to escape an on-coming car. The large numbers of noctuid larvae, all of which were taken in December and January, can be explained, in part, by the fact that these insects are nocturnal in their activities. The wide variety of food items which are acceptable to this owl has been recorded by A. K. Fisher, A. C. Bent, E. H. Forbush, A. A. Allen, and others; and the proportion of these items varies from place to place.

Here in the Great Smoky Mountains National Park and vicinity the availability of orthopterous insects during the autumn season appears to be of real significance. Of 23 owls found dead in the four months period August through November, 19 had remains of Orthoptera in the stomachs; 12 of the 14 owls found in October, the month of peak mortality, had eaten katydids, grasshoppers, camel crickets or other kindred insects. The sudden drop-off in the number of owls found dead during the month following the October peak could possibly be correlated with the die-off of these Orthoptera following the mid-autumn frosts.

Since the prevailing kind of road-surfacing in the area in question is a black asphalt, the warmth-retaining properties may be a factor in the occurrence thereon of insects and other prey on cool autumn nights. Whether attracted to, or temporarily stranded upon, the road, the insect is exposed to an avian predator who finds more ready passage along the open course of the road than in the dense young forest growth on either side. Over much of this area, at low and middle altitudes, the highways are passage-ways through more or less dense stands of young trees; for this reason, they appear to be acceptable hunting grounds for Screech Owls. The fact that automobiles kill or injure large numbers of insects and other small animals whose bodies remain on or near the road may have further bearing upon the occurrence of Screech Owls along our thoroughfares.

It is my belief that in most instances the death of these birds came about not from any tendency to be drawn to the glare of on-coming headlights, as some birds are drawn to lighthouse beacons, but by being struck while occupied in feeding upon prey in the highway.

NATIONAL PARK SERVICE, GATLINBURG, TENNESSEE. JANUARY 1953.

*This paper was read April 26, 1952, before the 33rd Annual meeting of the Wilson Ornithological Club, in Gatlinburg, Tennessee.

MOVEMENTS OF ROBINS BANDED IN NASHVILLE, TENNESSEE

By AMELIA R. LASKEY

For a number of years it has been obvious that a bountiful crop of fruit on hackberry trees **(Celtis sp.)**. is coincident with a large winter population of Robins **(Turdus migratorius)** as well as of blackbirds **(Sturnus vulgaris, Molothrus ater, Agelaius phoeniceus, Quiscalus sp., Euphagus carolinus)**. These congregate for weeks or months in a great roost at night and scatter for miles daily to feed over the country and in residence areas. It has been my aim to learn through banding something about the status of these winter Robins—whether they are migrants from the north, Tennessee breeding birds, or a combination of the two groups.

However, winter trapping of this species at my banding station has been very disappointing. The birds are seldom lured into traps; they find ample food in the trees and plenty of water in the numerous "wet-weather creeks".

The greater number of the 2,945 Robins that have been banded from 1931 to 1951 has been trapped with water-drips as bait in the dry years from August into November when they are migrating or wandering. A lesser number of those banded are adult breeding birds, nestlings, and summer first-year birds. In addition, 126 Robins were banded in their roosts at night. From this total number, 132 return and recovery reports have been accumulated in subsequent years (4.5% of the number banded). Robins do not re-enter traps readily, therefore, without color-banding, it is not easy to find out how long an individual remains in a given area. As examples: a Robin that had never been retaken at the banding station was found dead on the road a few hundred yards away three years after banding. A sick Robin was found by a neighbor 500 yards from the banding station almost nine years after banding, yet it had never been retrapped in that long interval.

There were 110 returns after a migration in this group of 2,945 Robins, involving 96 individuals, some of which came back several years. There were 22 recoveries as follows: in Tennessee, outside of Nashville—6 birds;

in states south of Tennessee—13 birds; in states north of Tennessee—3 birds.

Reports from numerous observers indicate that the winter roosts build up from November and December to reach their peak in mid-January or a little later. At my home station, Robins that had apparently been absent begin to appear in January and February. First records for these returning birds (usually color banded) are as follows: January 26, 1937; February 3, 1944 (2 birds); February 14, 1945; February 18, 1936 and 1940; February 21, 1933; and December 27, 1945 (a pair). In some of these years a Robin roost is known to have existed. Only the 1945 pair is known postively to have been breeding birds that spent the winter on their nesting grounds. That year an immense Robin roost was located at Charlotte and 33rd Streets, three and one half miles north of the banding station. The male of this pair had been banded October 6, 1941, had migrated the previous years in autumn and returned in February. There is no proof that the banded individuals, seen in January and February at the station or elsewhere in Nashville (some were shot with Christmas rifles), had been in the area all winter.

In February 1950, Madden Phillips spent four evenings in the Hillsboro-Stokes roost, a mile from my banding station, and banded 110 Robins. Reports were received later from three of these, all from Nashville: Spring, 1950; June 27, 1950; Jan. 29, 1951.

On the evening of March 16, 1940, three high school boys accompanied me on a banding expedition to the Crescent- Woodlawn roost, 2.3 miles from my banding station. The night was not dark enough so only 16 Robins were captured. During that month I banded 11 additional Robins. From this group of 27, two were recovered in the northern tier of states: No. 40-226129, banded March 25, 1940, was found dead June 19, 1940, at Gowanda, New York; No. 40-226110, banded March 16, 1940, was found dead at Freedom Station, Ohio, on April 14, 1941. Another, No. 40-202347, banded the previous autumn, November 3, 1939, was found dead at Davison, Michigan, on May 18, 1941.

The late summer and autumn season of 1939 has been my most successful period for trapping this species. From August 6 to November 22 (when banding was temporarily halted to attend the meeting of the Wilson Ornithological Club), I banded 694. From this group, there were 23 returns and recoveries. The latter showed that in the winter of 1939-1940, despite an ample hackberry crop and the existence of a roost, there had been a migration to the south. The reports received from the Fish and Wildlife Service, Washington, D. C., are presented in the upper part of the accompanying table.

In addition to the recoveries of birds banded in August to November 1939 and reported in the table, there were 13 individuals retaken at the banding station in 1940, 5 of them while the Crescent-Woodlawn roost was in use in February and March, 5 during the nesting season, and 3 in August.

Additional southern recoveries for other years are presented in the lower part of the table.

Banding Date	Recovery Date	Point of Recovery
Nov. 13, 1939	Dec. 27, 1939	New Orleans, La.
Nov. 18, 1939	Dec. 29, 1939	Lewisburg, Tenn.
Oct. 18, 1939	Jan. 31, 1940	Wauchula, Fla.
Nov. 11, 1939	Feb. 1940	Gonzales, La.
Nov. 21, 1939	Feb. 16, 1940	Decatur, Ga.
Nov. 10, 1939	Feb. 17, 1940	Goss, Miss.
Aug. 6, 1939	Mar. 10, 1940	Newnan, Ga.
Oct. 15, 1941	Mar. 15 1934	Hanceville, Ala.
July 13, 1934	Feb. 20, 1936	Carville, La.
Sept. 18, 1936	Spring, 1940	Evergreen, Ala.
Oct. 9, 1939	Jan. 23, 1944	Valdosta, Ga.
May 5, 1948	Jan. 25, 1949	Scottsboro, Ala.
Apr. 13, 1950	Dec. 15, 1950	Marrero, La.

Two recoveries of first year birds, banded September 28, 1931, are worth mentioning as their recoveries in June, 1932, suggest a possible tendency toward extension of breeding range to the south. One was taken in Cowan, Tennessee, the other in Tuscaloosa, Alabama.

Although Fish and Wildlife Service reports are not available at this time on all birds banded in the north and recovered in Tennessee, the following, have been published: a juvenal banded at Bangor, Maine, on July 8, 1910 was found in Nashville on February 21, 1911; another banded in Sandusky, Ohio, was recovered at Nashville, dates not given (AUK, 27: 159. 1910). Another banded July13, 1946, at Demarest, New Jersey was recovered December 27, 1946, in Wayne County, Tennessee (EBBA NEWS, 2 (6): 37. 1948).

CONCLUSIONS

Based on the 132 return and recovery records from 2,945 Robins banded at Nashville, Tennessee, in the years 1931-1951, the following conclusions are submitted: There are definite spring and autumn migrations of local Robins and northern Robins passing through.

Some local birds migrate as far south as Louisiana and Florida.

In favorable years of abundance of hackberries, some local birds remain for the winter.

Some local Robins may wander for the early part of the winter, or make short migrations, and return in January and February.

Winter populations of Robins at Nashville embraces migrants from the northern tier of states: Michigan, Ohio, New York; and also Tennessee breeding birds.

Although autumn dry seasons are conducive to success in trapping and banding Robins, winter flocks are difficult to trap. Intensive efforts should be made to trap large numbers in the roosts as more data are needed on the birds present from December through March.

1521 GRAYBAR LANE, NASHVILLE 12, TENN. March 1953.

NOTES ON BOLIVAR COUNTY, MISSISSIPPI, BIRDS

By MERRITT G. VAIDEN

This paper is the ninth in a series on the birds of this region published in THE MIGRANT (Sept. 1939; June 1940; Sept. 1940; Sept. 1943; Sept. 1947; Dec. 1948; March 1952; and Dec. 1952).

The records and specimens mentioned in this paper are from Bolivar County, Mississippi. All specimens are in my private collection.

Dr. Alexander Wetmore, Dr. John Aldrich, and Mr. Allen Duvall have identified some species to subspecies.

With the introduction of rice as one of the major money-crops of the Yazoo-Mississippi Delta, we find a greater number of certain species of birds either stopping over or wintering with us. Thousands of acres of rice are now being planted; some of the fields are left flooded and these prove attractive to rails, bitterns, and ducks. Black and Common Terns stop to feed in these lakes. We find the Mourning Dove using the dry rice fields as a feeding area. Barn, Barred, and Short-eared Owls have increased greatly; in the dried-out rice fields we find many Short-eared Owls. Certain hawks have been more plentiful than ever before.

HARLAN'S HAWK(**Buteo harlani**). A female of this species was taken on December 27, 1947, by John Brister, Jr., about nine miles south of Rosedale. It is my second collection, (MIGRANT, 19:61. 1948).

NORTHERN RED-SHOULDERED HAWK (**Buteo l. lineatus**). Mr. Allen Duvall of the Fish and Wildlife Service identified a specimen taken on September 17, 1950, as this form. It is a pretty female.

MARSH HAWK (**Circus cyaneus hudsonius**). The female Marsh Hawk is normally a most common hawk here as a winter visitant. Now with the planting of rice there can be counted almost any afternoon two to ten males as they 'hawk' the the rice areas for mice. A specimen had just eaten two white-footed mice when collected. On February 8, 1953, seven were found feeding over one rice field, five were males.

VIRGINIA RAIL (**Rallus l. limicola**). On November 4, 1952, an immature male of this species was taken from a flooded rice field three miles east of Malvina, Mississippi. Nine Virginia Rails were counted as we walked along the rice levees while young men plodded along in the water running the birds before us. These birds had departed on November 15th when we returned to this field. It is my second collection, (MIGRANT, 18:33. 1947).

SORA RAIL (**Porzana carolina**). In the same field and on the same day that the Virginia Rail was taken, over twenty-five Soras were driven over the dry levee tops by young men wading through the mud and slush. One was collected, my first fall collection. Bobby Collins seems to think that my count was not high enough.

WOODCOCK (**Philohela minor**). On November 9 and 10, 1952, we had over two inches of rain; most of the rain falling during the night up to 1 a. m. There was some lightning and thunder indicating a squall line above us. Two Woodcocks were found dead on the 12th in the town and another, injured, was located on the 13th. The latter was made in to a bird skin. Its crop and gizzard were empty. A blood clot was plainly visible between skull and skin showing a probable collision with the earth or a tree. The skull however was not broken.

BARN OWL (**Tyto alba pratincola**). An adult bird of this species was found along the highway at Perthshire, twelve miles north of Rosedale. A nice skin was made from the specimen. Another specimen, badly crushed, was located along the highway eight miles south of the city. These observations were made on February 1, 1953.

SHORT-EARED OWL (**Asio f. flammeus**). On November 9 and 10, 1952, we located not less than fifty of these birds feeding in a drained, burned-over rice field. Three were collected at this locality on these dates, two were males and the other a female. I have found two of these birds dead along the highway at Perthshire, Mississippi, and one was made into a skin. Of interest was the taking of a specimen at 9 p. m. from side of the levee by Reubin Waren. Bobby Collins collected a specimen on December 29, 1952. Many flocks of these birds are here with us to date of this paper. My only other collection was a bird taken on March 18, 1940 (MIGRANT, 14: 50-52. 1943).

NORTHERN BLUE JAY (**Cyanocitta cristata bromia**). An adult female taken on March 1, 1952, and an adult male secured on April 19, 1952, have been identified by Dr. Alexander Wetmore of the Smithsonian Institution, as the northern form. I find no other record of this form having been secured in the State.

SPRAGUE'S PIPIT (**Anthus spraguei**). An adult male and female of this species was taken on January 4, and another, a female, on January 11, 1953. Two others were found partly eaten by either foxes or hawks. The specimens taken in this county were feeding along the slope of the levee in short, dead grass. Talmadge Bradley and Carlton Johnson assisted me in spotting the small flock. This is the second record for the State. The first record was by Andrew and W. B. Allison when a bird was taken on January 1, 1902, at a locality near Bay Saint Louis, Hancock County. (AUK, 23: 232. 1906).

BLACK-THROATED GREEN WARBLER (**Dendroica virens**). On November 25, 1952, an adult male of this species was collected at Old River Lake. It is my latest fall record. The bird was quite active and was chased to the third tree before being taken. A slight injury to a wing had probably slowed down migration with the regular waves that moved through during the fall.

WESTERN MEADOWLARK (**Sturnella neglecta**). Many fine flocks have been located this winter. One flock contained fourteen birds. I have collected seven of the birds at different dates and localities; all collected birds were using a short song that I have designated as the 'winter song'. No bird was taken that was not identified before collection. I have found the Western Meadowlark showing a preference for row-plowed land without a particle of growing grass. I have found them, however, going to roost in short stubble in a church yard and along short grass growing on ditch banks.

EASTERN GRASSHOPPER SPARROW **(Ammodramus savannarum pratensis).** Three specimens, taken on April 14, 1944, from a nice flock feeding along a slope of the levee three miles south of Rosedale, were assigned by Dr. John W. Aldrich (1946), of Fish and Wildlife Service, to this form. It is a regular but scarce migrant and winter visitant in this area.

LECONTE'S SPARROW **(Passerherbulus c. caudacutus).** While this bird has been a regular winter visitant to this area, the planting of rice has produced at times, this fall, an abundance of these beautiful little sparrows. While checking the flooded fields for rails, we flushed from the levees in the rice field many of these birds. An immature female was taken on November 16, 1952.

RED-CROWNED PARROT **(Amazona viridigenalis).** An immature female secured one and one-half miles west of Waxhaw, Mississippi, on October 23, 1952, from a corn field while feeding with grackles was identified as this species by Dr. Alexander Wetmore. This parrot's normal range is northeastern Mexico.

A question immediately comes to mind as to the specimen being an escaped parrot from captivity; that is certainly probable, but the collection is worth recording with these facts: (1) The bird shows no feather wear or abrading whatever, (2) It is an immature bird, (3) It was first seen on May 12, 1952, two days following a sixty m. p. h. wind from the southwest, (4) Within very recent years Road-runners, Anis, Mexican Ground Doves, Vermilion and Scissor-tailed Flycatchers, and Fulvous Tree Ducks have been seen or collected in Arkansas, Mississippi, or both, (5) This bird was actively living and feeding under all wild conditions with 'blackbirds'; the bird was feeding on corn and other grain and roosting at a regular 'blackbird' roost at Lake Concordia, (6) It was chased by Mr. William Beard, the collector, and by others for over four months; it was found to be extremely wild and no one could get in gunshot range until the day of collection when the bird was found feeding near a large and deep ditch and near a herd of cattle. The ditch was used for close approach and collection of the parrot, (7) Every effort has been made since collection to find some person who has lost a bird from a cage or otherwise, without any success.

PURPLE GRACKLE **(Quiscalus quiscula 'ridgway').** An adult female was collected from a large flock of grackles on December 30, 1951, near Legion Lake. It was identified by Dr. Alexander Wetmore as "a specimen of the supposed hybrid between the purple and the bronzed forms". There is no available record to show that this form has been secured before in northern Mississippi.

ROSEDALE, BOLIVAR COUNTY, MISSISSIPPI, February 10, 1953.

THE ROUND TABLE

SANDHILL CRANES AT MEMPHIS.—On February 1, 1953, at the Shelby County Penal Farm, about one and a half miles east of the Memphis city limits, I noticed two large birds flying side by side above the trees bordering the Wolf River. As they approached with necks outstretched and legs trailing behind, it became apparent that I was seeing another "first" for this area. They followed the river at first and then swung north in a long glide, losing altitude as they came. Passing almost directly over my head, hardly twenty feet above the ground, I got the best look at a Sandhill Crane that I have ever enjoyed. They stayed at the Penal Farm about one quarter hour, and then, rising side by side in large circles much like Ibis, ascended until they were hardly visible with my 10X binoculars. They departed northward towards the Mississippi River. They were in the "brown" plumage of an immature, and quite similar to immature Sandhill Cranes I saw at Red Rock Lake, Montana, a year and a half ago. (This note is reprinted from "The Tennessee Warbler, Bulletin of the Memphis Chapter of the T. O. S., Feb., 1953.)—HOWARD T. BARBIG, Route 10, Memphis, Tenn.

A CHAT NEAR NASHVILLE ESTABLISHES FIRST WINTER RECORD FOR TENNESSEE—A Yellow-breasted Chat **(Icteria virens)** was observed at close range February 22, 1953, northwest of Nashville on the Hyde's Ferry Pike by the writer and Miss Jennie Riggs. The bird was first observed in a low shrub. Its brilliant yellow breast was a surprising spot of color in the winter sun. Leafless gray branches not only deprived the Chat of the camouflage in which we are accustomed to see it but actually pushed it forward as if in relief. It flew from the shrub to a perch about fifteen feet up in a bare tree and then leisurely dropped thirty feet beyond into buckbush and briar. It was in fine color: breast clear bright yellow, back feathers fresh glossy olive, underparts distinctly white; its eye mark was clearly evident but somewhat less sharp than a male's at the height of breeding. The bird showed no sign of ill health or injury. It was silent.

As far as I can determine this is the first winter record of a Yellow-breasted Chat in Tennessee. The earliest spring date for the Nashville area seems to be April 13, 1930, as established by Ernest L. Spain, and October 3, 1925, is probably the latest local fall record (GRM, HCM, WMW).

"Audubon Field Notes" for three winter seasons in June issues for 1950, 1951, and 1952 include at least sixteen winter records of Chats east of the Appalachians. The same numbers of the magazine report for the Mississippi Valley only two such records: 1 at Pensacola December 26, 1949, and 1 at New Orleans January 15, 1950. Messner reported Michigan's first winter Chat January 26, 1949 (WILSON BULL, 61:236. 1949). This bird showed an irregular moult suggesting its having been delayed by injury.

Ben Coffey and H. C. Monk very kindly sent me several of the above references.—KATHERINE A. GOODPASTURE, 408 Fairfax Ave., Nashville, Tenn.

A CENSUS OF HOUSE WRENS IN UPPER EAST TENNESSEE—On July 13, 1952, a survey was made of the singing House Wrens (**Troglodytes aedon**) in upper East Tennessee. The Bristol, Kingsport, Greeneville, and Elizabethton chapters of T. O. S. were invited to participate and encouraged to locate singing birds prior to that date so that their presence could be detected quickly on the designated date, thus permitting a greater area coverage in the available time. The sky was clear and the temperature ranged from 67 to 93 degrees F. and the area was suffering from the lack of rain. Although the area coverage was nothing like complete and the very high temperature of the afternoon was not conducive to House Wren singing, the results show that there are substantial numbers of House Wrens present in the area during or immediately following the breeding season.

In Bristol Dr. B. A. Barrington located three birds between 3:00 and 5:00 p. m. as follows: Georgia Ave. and Cedar St. (1); Golf Course N. E. (1); Columbia Rd. and West King Springs (1). The writer located three additional birds in Bristol between 2:00 and 4:00 p. m. at Pine and Spruce Sts. (1); Maple and Georgia Sts. (1); and Suffolk and Kings Mill Rd. (1).

From Greeneville twenty-one House Wrens were reported between the hours of 5:00 and 8:00 a. m. Th first hour and one-half Mr. J. B. White worked alone and then was joined by Mrs. J. B. White and Mrs. Bill Clemens for the remaining hour and one-half. The locations of singing House Wrens in and near Greeneville were as follows: near J. B. White's, 104 Union St. (3); opposite Forest Park Pool (1); Brown's Hill of McKee St. (2); opposite 412 Park St. (1); near Andrew Johnson Club House (1); South Main at Susong House "Hill Top" (1); Night home, Maple Ave. extension (1); Leonard St. and Highland Ave. intersection (1); Pat Harrison's, 104 Sevier St. (3); 105 Sevier St. (1); Franklin and Sevier St. intersection (1); 613 Franklin St., Dr. J. C. McGuffin (1); G. Lovette home Rt. 8c, two miles from town (1); Teague residence, 404 Church St. (1); George Rhea residence, Maple Ave. (1) and one (1) in addition for which no location was given.

Mrs. Hugo Doob, Jr., reported two (2) House Wrens from Johnson City beween 8:15 and 9:15 a. m., one (1) at 209 W. Watauga Ave. and Ridge Crest Road (1).

Robert Herndon and the writer covered Elizabethton quite thoroughly between 5:00 and 10:00 a. m. and located only two singing House Wrens, at the junction of Carter and Parkway Blvds. (1) and behind the Douglas School (colored) (1). Between the hours of 11:00 a. m. and 2:00 p. m. together with Robert Brownell we covered the area between Elizabethton and Bristol via Stony Creek, Shady Valley and Boy Scout Camp Tom Howard. Not a single House Wren was heard on this route, even in Shady Valley where House Wrens have been heard many times and are known to be summer residents.

No report has been received by us from the Kingsport Chapter of the T. O. S.

This was the first attempt at trying a summer survey of a single species in this area and since the House Wren has been extending its range down the tributaries of the Tennessee River, an actual count during the first part of July appeared desirable. A more intensive survey covering a larger area and extending further southwest is suggested for a future date.

We acknowledge with sincere appreciation the contributions of all those who participated in this survey.—LEE R. HERNDON, 1533 Burgie Place, Elizabethton, Tennessee.

FALL RECORDS OF THE BOBOLINK.—On Oct. 16, 1952, about four miles west of West Memphis, Ark., I was able to observe at twenty to twenty-five feet two Bobolinks perched in the open on the tips of rice stalks. On Oct. 18, accompanied by Rev. Wm. Hearn, I found a third, at Lehi, Ark. These are apparently the first fall records for this species in the immediate Memphis area. Baerg in "Birds of Arkansas" (1951) quotes fall records for Arkansas County, Sept. 1 to Oct. 15, 1950, by Meanley. Burleigh (1943) gives none for the Gulf Coast of Mississippi. For Louisiana, Oberholser (1938) reports the species as casual to Sept. 27. In **Audubon Field Notes,** Feb. 1950, 4 (1): 21, Tom Imhof gives a third fall record for Alabama. The species should be found regularly but sparingly each fall in Mid-South rice growing areas. This point was discussed on a recent trip to Lonoke, Ark., but lack of time prevented a search for this species. A report of a rice field in Tennessee sent us to one near Rossville but it proved to be only a half-acre experiment. The records given were the results of five afternoons, Oct. 13-19, in the West Memphis-Lehi area.—ALAN ZIEGLER, MEMPHIS.

DUCK RIVER BOTTOMS REVISITED—On February 14, 1953, twenty-two members of the Nashville T. O. S. returned to the Waterfowl Refuge, described by Mrs. Bell in THE MIGRANT, December, 1952.

The Cyperts were again our hosts but the weather was not quite so favorable for birding. We covered most of the territory covered ten weeks earlier. For some species the population had changed noticeably. This is what we found: Pied-billed Grebe, 2; Double-Crested Cormorant, 130; Great Blue Heron, 200 (many were in trees of an old rookery); Canada Goose, 2000; Mallard, 100; Black Duck, 30; American Pintail, 20; Lesser Scaup, 40; Buffle-head, 3; Red-tailed Hawk, 6; Bald Eagle, 4; Marsh Hawk, 3; Peregrine Falcon, 1; Coot, 2; Killdeer, 2; Ring-billed Gull, 300; Herring Gull, 5; Mourning Dove, 1; Pileated Woodpecker, 2; Red-bellied Woodpecker, 1; Blue Jay, 3; Crow, 15; Bluebird, 5; Shrike, 2; Starling, 300; Redwing Blackbird, 1500; Grackle, 1000; Cowbird, 3; Cardinal, 8; Goldfinch, 125; Towhee, 5; Savannah Sparrow, 6; LeConte's Sparrow,3.—JENNIE RIGGS, 3313 Fairmont Drive, Nashville, Tennessee.

THE SEASON

NASHVILLE—The winter just ending has been perhaps the mildest on record. Snow has not covered the ground; the temperature has not often been as low as freezing. The berry crop was abundant. Hackberry trees, privet hedge, and winterberry honeysuckle were laden.

Pine Siskins have been reported by more observers in more localities than in any other year. In the South Harpeth Valley eighteen appeared November 16 and remained in varying numbers thru March 16 when twenty were counted. At Blossomdell they appeared December 11 for the first time ever. Ten were reported in Percy Warner Park on December 21. On December 27 six were on old Hickory Boulevard and four at County Hospital Farm. Numerous others have been reported in and near the city.

The following observations are of birds seldom or rarely wintering around Nashville: On December 30 Gleaves and Schreiber, Jr, found two Short-eared Owls in Buena Vista; they were last seen March 1. A wintering Saw-whet Owl will be reported in a later issue of THE MIGRANT. A record this winter of a Yellow-breasted Chat is reported in "The Round Table" of this issue. Four LeConte's Sparrows have been seen between November 8 and March 8. A Chipping Sparrow banded by Mrs. Laskey on February 7 was re-trapped March 7.

Robins were present all winter, and were in particularly large flocks in early January. Among them was one decidely blonde Robin and two with large white splotches. Blackbird roosts have been located in Williamson and Wilson Counties, and will be fully described in the next issue. Black and Turkey Vultures formed a roost in northwest Williamson County.

The following observations are of interest: Pied-billed Grebes were on Radnor Lake in November, December, and March 1 when four were present. American Pipits were recorded in November and December and on March 7 thirty-eight were in South Harpeth Valley. Cedar Waxwings appeared in large flocks in the week of February 14 and have remained feeding on the berries and elm seeds. White-crowned Sparrows appeared in larger numbers than usual, fifteen in Bell's Bend Nov. 8, sixteen on Nov. 27 and ten on Feb. 22 at County Hospital. Solitary birds that stayed all winter were a Red-headed Woodpecker seen in West Meade by Mr. Abernathy, a Phoebe at Basin Springs, a Brown Thrasher at Miss Evelyn Norton's feeding station on Love Circle and probably two others seen one on January 4 and one singing on March 11, and three Bewick's Wrens in the city.

Mourning Doves were cooing Jan. 15 and one was carrying nesting material on Jan. 21. Cardinals were courtship feeding Feb. 4. Waterfowl migration notes include Gadwall, 2; Shoveller, 4; Canvasback, 25;—all on March 1 at Radnor and one Coot and 70 Lesser Scaup on March 15 at the same place. On March 1 a Sharp-shinned Hawk returned to its old territory at Basin Springs and was calling on the 8th, even tho this species nests late. A flock of 100 or more Killdeer was in Buena Vista bottoms March 4 and 8. Two Wilson's Snipe that wintered there were joined by 35 others, along with a Greater Yellow-legs, on March 4. A male Cowbird, color-banded by Mrs. Laskey in 1951 and re-trapped in 1952 returned this year on March 6. Black-crowned Night Herons were back at their old stand March 8, the same date on which they were first seen last year. The first Bluebird egg was reported by Mrs. Laskey on March 11 and Phoebes started nest building by March 12. A Louisiana Water-thrush was at Basin Springs Farm March 16, two days later than last year.—JENNIE RIGGS

KNOXVILLE—This past winter has been warmer than average, especially so in the latter part of the winter. Altho in November there was an all-time record snowfall, snow stayed on the ground for only a few days then and never covered the ground for more than a day at any other time during the winter. No species appeared to be unusually scarce or abundant except for Robins, Brown Thrashers, and Pine Siskins.

Robins have been commoner this winter than usual, being seen in small flocks all during the winter and a fairly large roost of them, with Grackles, being reported in the vicinity of Norris. A few Brown Thrashers wintered around Knoxville, four different individuals being seen all thru January and others at different times.

For the first time in several years Pine Siskins have been seen here in numbers. They were first reported on Nov. 11 and have been seen regularly thru early March, altho they appear to have been scarcer during the later part of winter. This is the first time they have been seen here since a single record in 1951 and a few in 1949.

The following observations are a little unusual: Several Loons were seen during November, but none since that time. American Egrets were seen until Oct. 20 in few numbers, the first time we have had any October records. Five Canvasbacks reported on Jan. 13 and five on Jan. 25 make the first January records for this duck in recent years. Pine Warblers were first reported on March 1, the latest arrival date for the last four years. Purple Martins were reported in the local newspaper as having arrived on March 4, an average date.

A pair of Mourning Doves were observed building on the University campus on March 17.—JAMES T. TANNER

GREENEVILLE—Heralding winter's approach, the first Ruby-crowned Kinglet reported was an individual at Camp Creek Bald on September 28, others being seen in the lowlands October 8 and 10. The earliest dates for Golden-crowned Kinglets were October 17, 18, and 23. A Brown Creeper was present October 28. White-crowned Sparrows returned October 13. A Myrtle Warbler was here October 23. Twenty-five Canada Geese settled at dusk, October 12, in a dry bottomland field of shocked corn. Earlier that afternoon on upper Paint Creek, under Camp Creek Bald, an American Bittern obviously several days dead was being displayed by the small mountaineer who had shot it.

The winter season proved comparatively open and mild, with one late November snow of consequence. Since January there has been more than average rainfall.

One of the two Brown Thrashers on Greeneville's Christmas Count, the one recorded by Mr. Shanks near his home, has been seen throughout the winter (conversation with Alfred Irvine). This year Tusculum College campus lacked its wintering Red-headed Woodpeckers (C. M. Shanks). No Red-breasted Nuthatches have been seen. The maximum number of Prairie Horned Larks in the wintering flock was seventy in late November; few have been present since December. Indication of increase in White-crowned Sparrow numbers is that a suitable habitat under Bluff Mountain has been for the first time occupied by a group of this species. Discovery of their presence here was gratifying, as for five winters they had been fruitlessly sought in this particular pasture and brushy roadside. In addition, three places on the Reed farm customarily occupied by these sparrows have them present as usual.

Early song accompanied rises in temperature as spring approached. The Bewick's Wren was first heard January 7, the Phoebe February 23, the Purple Finch March 16.

First of the early migrants were the Red-wings. Throughout winter a few individuals were seen (J. B. White, Alfred Irvine, Richard Nevius). On February 12 a flock of fifteen appeared, with forty-three next day, some in song. Robin flocks began on February 11 with thirty, seventy-five the next day, singing individuals by February 23. Three Grackles arrived February 23; by March 7 around one hundred obliterated other sounds with their jubilant song. A Pine Warbler was reported on March 1 by Mr. and Mrs. Alfred Irvine. Six Wilson's Snipe on March 8 and twenty on March 10 were found in Lick Creek bottoms (Richard Nevius). There also on March 8 were seen twenty Rusty Blackbirds. On March 16 a Chipping Sparrow was seen (R. N.).

Scarcity of opportunity to observe water birds prevents any comment upon their seasonal fluctuations. However, spring rains flooding Roaring Fork bottoms have provided some good bird watching. Two Ring-billed Gulls were present February 12 (R. N.). On March 15, there remained two ponds from a later flooding of the creek. This water attracted two Great Blue Herons, two hundred Killdeer, and sixteen ducks. Four Lesser Scaup spent the day on the larger pond. The twelve ducks which alternately swam in the smaller pond or rested on its grassy banks were four male and two female Mallards, two male Shovellers, two male Pintails, a male and female Blue-winged Teal. They seemed unaware of observers 200 feet distant and concealed by a fence row. They were alert to cries and flight of Killdeer, pausing, extending their necks, and, in the case of the two female Mallards, turning their heads to watch the Killdeer in flight.

Little nesting activity has been observed. Incubation was in progress March 12 in one Dove nest, and another was being built March 17.—MRS. RICHARD NEVIUS

ELIZABETHTON—After a very dry summer and fall, the year ended with a deficiency in rainfall of about thirteen inches. We have had more than the average snow during the winter, but the average precipitation resulted for the winter months. The minimum temperature for the winter was 17 degrees, on Dec. 29, which was appreciably higher than usual.

Ring-necked Ducks, Lesser Scaups, Buffleheads, and Hooded Mergansers have spent the winter in the vicinity of Wilbur Lake since that area has been made a sanctuary. Arrival dates for other species of ducks were: Black Duck, Mar. 1; Mallard and Baldpate, Mar. 2. On March 8 about 300 Mallards, 40 Baldpates, 6 Black Ducks, and 8 Buffleheads were on the upper end of Watauga Lake, while there were about 50 Ring-necked Ducks, 30 Lesser Scaup, and 6 Bufflehead on Wilbur Lake. A lone Herring Gull was observed on Watauga Lake.

Mrs. E. Evans reported a pair of Chipping Sparrows on Jan. 15 and has observed them in the same area at least twice since then. Evidently they spent the winter in this area. The Lukers reported the first Red-winged Blackbirds on Feb. 1. Mrs. F. W. Behrend reported a Bewick's Wren singing on Feb. 3. Phoebes were absent the first three weeks of January and were first reported on Jan. 25. Grackles, Rusty Blackbirds, and Savannah Sparrows were first reported on Mar. 1, and Wilson's Snipe on Mar. 2—a late date.

Numerous reports of Pine Siskins have come in, particularly during February. They have been noted in our yard at least four times recently, for the first time to our knowledge.

On March 7 the Elizabethton Chapter of T. O. S. celebrated the ninth anniversary of founding with a dinner and program at the Franklin Club. This affair was attended by about fifty members and guests, and Mr. A. F. Ganier, President of T. O. S., was our guest speaker. He presented a paper on "The Degree of Intelligence of Birds", and showed a series of about fifty colored slides of scenes and objects of historical interest thruout Tennessee. The audience was much pleased with both the paper and slides. It was indeed a pleasure to have with us again our much beloved president of our society.—LEE R. HERNDON.

KINGSPORT—For the Kingsport Bird Club the fall and winter season began with our field day on Sept. 28, in which we counted 71 species. This census was chiefly notable for the large number of warblers, especially Chestnut-sided, Blackburnian, and Magnolia, and for the presence of Nashville and Wilson's Warblers not heretofore recorded in our area. The census was also unusual for the presence of Great Horned Owls, the late record Black-billed Cuckoo, and the absence of Olive-backed Thrushes and Wilson Snipe, which appeared the first week in October.

The fall season brought the earliest locally recorded date for Coot, Sept. 21. Ruby-crowned and Golden-crowned Kinglets were in unusual numbers. Two Red-shouldered Hawks reappeared for a few weeks residence in November in the woods along Reedy Creek flats where they were seen regularly in October and November 1951.

The very mild winter showed increasing numbers of ducks. By Dec. 15 we had records of Mallards, Black Ducks, Blue-winged Teal, Redheads, Canvasback, Lesser Scaup, and Hooded, American, and Red-breasted Mergansers. We recorded Canada Geese as late as the third week of December and as early as the second week of February. There were during the winter a scarcity of snipe and of Horned Larks and unusual numbers of Pine Siskins and Cedar Waxwings.—ANN H. (MRS. ROBERT M.) SWITZER.

BOOK REVIEW

BIRDS OF THE EVERGLADES, By Henry H. Collins, Jr. Illustr. by Roger Tory Peterson. 16 p. 1952. Blue Heron Press, Box 236, Bronxville, N. Y. 25c.

BIRDS OF MASSACHUSETTS, By Henry H. Collins, Jr. Illustr. by Roger Tory Peterson 16 p. 195.. Blue Heron Press, Box 236, Bronxville, N. Y. 25c.

These two pamphlets were written with the aim of providing beginners in bird watching with cheap and simplified guides to the birds of limited areas. Each consists of very brief remarks on the commoner birds of the area, a list of good places to see birds, and a check-list of species known fom the area. The pamphlets are illustrated by black and white and colored figures by Roger Tory Peterson, some being reprinted from his plates in "A Field Guide to Birds". The color reproduction is only fair. These little guides may serve to stimulate an interest in birds by providing people with a cheap aid to their identification, but once an interest is established, these would not be satisfactory and the student would abandon them for Peterson's "Field Guide".—J. T. T.

(Minimum mail order for these pamphlets is $1.)

ENJOYING BIRDS IN MICHIGAN. Edited by Homer D. Roberts and Clarence J. Messner. Michigan Audubon Society. Order from Mrs. Tafh Johnson, 48400 North Ave., Route 2, Mount Clemens, Michigan.

This sixty-four page guide to Michigan bird life contains a variety of items. There are descriptions of characteristic Michigan birds, directions on how to find birds in that State, suggestions for bird study, suggestions for attracting birds, descriptions of the activities of the Michigan Audubon Society, and a check-list of the birds of the State. More than twenty people participated in writing the various sections. It should be very useful to bird students in Michigan, either resident or visitor, and it should do a lot to stimulate the study of birds in that State.—J. T. T.

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A GOLDEN ANNIVERSARY

Fifty years ago, in 1903, the Tennessee legislature passed a law giving legal protection to birds. The following is quoted from the Report of the American Ornithologists' Union Committee on the Protection of North American Birds for the Year 1903 (AUK, 21: 192-193, 208) and pertains to Tennessee.

"LEGISLATION—During the session of 1903 (of the Tennessee legislature) the American Ornithologists' Union model law was adopted. This admirable improvement was due entirely to the devoted and energetic work of Senator J. M. Graham, who introduced the bill in the Senate, assisted by Representative Birdsong in the House.

"The initial movement in this great work was made many months before the legislature convened, by Senator Graham, who wrote to the National Committee for information regarding good bird legislation. From that day until the law went into effect he was untiring in his labors to give legal protection to the birds of Tennessee, thus conserving one of the best assets of the State. The next session of the legislature will be held in 1905.

"WARDEN SYSTEM—No wardens were employed by the Thayer Fund. The State officials, however, are alive to their duties. Mr. J. K. Acklen, State Game Warden, writes as follows: "The enforcement of our laws for the protection of both game and non-game birds is a difficult task in this State. I have labored for years on the subject, and only succeeded in our last Legislature in establishing the Department of Game, the whole expense of which Department I am bearing out of my individual means. You may judge from this as to how I feel on the subject."

"AUDUBON WORK—There is practically none done in the State at the present time. The following editorial from the 'Nashville American', of March 19, is such excellent advice to farmers that it is given in full in hope that many thousands of the tillers of the soil will read and follow its counsel: "A birdless land is a dreary land; where the silence is unbroken by the song of birds there is loneliness that is oppressive. Imagine a farm without the cheering presence and music of birds. Think of the fields and woods barren of feathered songsters. They are well worth protecting and preserving on purely sentimental grounds, but aside from sentiment they are worth protecting because of their value to the farmer and gardener and to nearly every tree and flower that grows. They are as truly the friends of the farmer as the seasons—the wind and the rain and the sunshine, the light and the warmth, the frost and the dew, and all the elements of nature's alchemy. He is a primitive farmer who does not appreciate the value of birds."

Prof. Charles A. Keffer, University of Tennessee, Knoxville, was listed as President of the Tennessee Audubon Society, and Mrs. C. C. Conner, of Ripley, as Secretary. The T. O. S. is the successor and heir of the old State Audubon Society.

Fifty years after the "model law" was passed, we still feel that wild birds need protection, but we know that more than just legal protection is needed. Knowledge and appreciation of birds is the firmest foundation for good conservation, and the T. O. S. has done much to lay this foundation by its aim: "to record and encourage the study of birds in Tennessee". We know further, for we know that the best laws and the strongest will and sentiment to protect birds will not suffice if proper habitats are not protected or created. Preservation of some of our rarest species is almost entirely a problem of preserving the needed habitat. The conservation-minded individual, to be effective, must be forward-looking and well enough informed to see such needs before it is too late. The program of conservation started by the passage of a law in 1903 has gone well but it is not yet finished; it never will be, but we must see that it never even hesitates.

THE ANNUAL MEETING
May 9 and 10, 1953

The 38th annual meeting of the Tennessee Ornithological Society will be held at Nashville on Saturday and Sunday, May 9 and 10, 1953. The Nashville Chapter will be hosts upon this occasion and are looking forward to a fine attendance from all over the State. Saturday morning will be used for visiting points of interest in and about Nashville, and the afternoon events will consist of a program and business session at the Nashville Children's Museum. The annual dinner will be held downtown at a place to be chosen by the committee. On Sunday a field trip is scheduled for the day and this will be concluded by a brief business meeting at which officers for the coming year will be elected.

Yours for a fine meeting,

ALBERT F. GANIER, President
EDWIN D. SCHREIBER, Secretary

Come To The Annual Meeting!

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* * *

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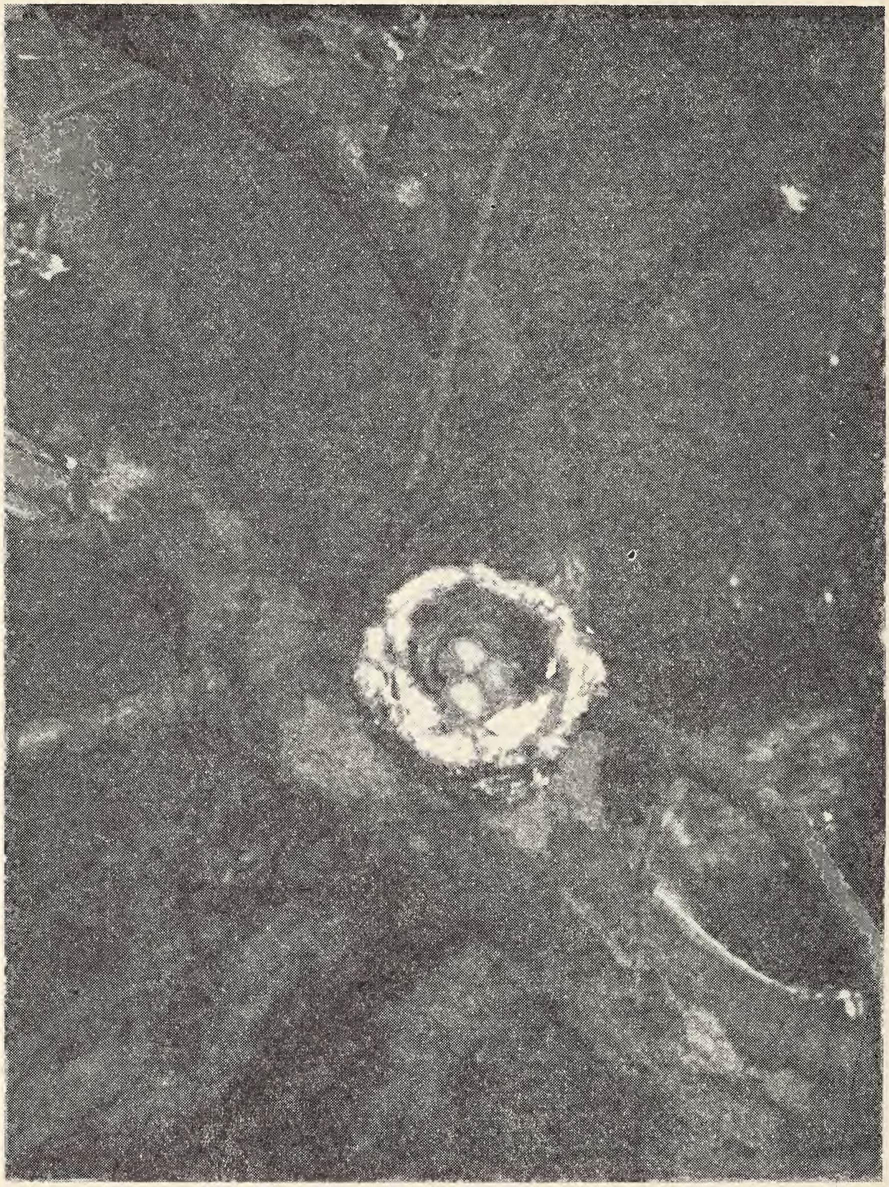

NEST AND EGGS OF SYCAMORE WARBLER
(Dendroica dominica albilora)

Nashville, Tenn., April 30, 1953 — Photo by A. F. Ganier

THE MIGRANT

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OBSERVATIONS ON THE SYCAMORE WARBLER

By ALBERT F. GANIER

As its name implies, this warbler (**Dendroica dominica albilora**) in most places within its summer range is very partial to passing its time along the sycamore trees which grow along our streams. In Middle Tennessee this is its preferred habitat. The species is quite adaptable, however, for in West Tennessee I have found that it is partial to cypress trees instead; on the Cumberland plateau eastward it is partial to the oak forests; and in East Tennessee it shows a preference for pines even though these may not be near a stream. They usually build their nests in the type of tree for which they have shown preference, as mentioned above.

Most of these birds migrate southward by the end of summer to spend the winter in Mexico and Central America. It is one of the earliest of our migrant birds to return in the spring and we look for it eagerly during the last few days in March in the Nashville area. At Athens, in southeast Tennessee, a series of records there for seven years by Richard Gettys (Ganier, 1935) showed it arriving on March 23, 24, 24, 24, 26, April 2 and 3. Westward, at Reelfoot Lake, R. Demett Smith (1950) has an extremely early record of Feb. 26, 1950.

The males arrive first and set claim to their chosen territory with vigorous song. It is my belief, as well as can be determined without banding, that last year's males return to the same territory occupied the previous year, for almost always such a territory is re-occupied. These early arrivals are easily seen among the sycamores for the leaves do not come out until later, and their gleaning of the limbs for insects or larvae doubtless renders useful service to the tree.

The song carries well and is quite characteristic. It can be heard several hundred feet away and has been likened by many to the song of the Louisiana Water-thrush. Later in the season, it becomes less vigorous and is then remindful of that of the Indigo Bunting.

While searching the branches for food, its actions are rather deliberate and for that reason it is often hard to find after the leaves have come out, even though it may stop frequently to give its song. It usually changes to another tree after five or ten minutes and for the most part feeds in the upper half of the tree. When at times it comes to the lower branches, it is quite unwary and some will permit a close approach. Such a view of this handsome warbler is an experience to be remembered.

Most of my observations on the Sycamore Warbler have been along

Little Marrowbone Creek which flows thru the Highland Rim country (700-800 ft. elevation) fifteen miles west of Nashville. This creek is intermittently lined with sycamores for twelve miles, and there are probably fifteen pairs of these birds located in that distance. Dozens of other such streams drain this country into the Cumberland River and each is believed to be as well occupied by this species.

To find occupied territories in advance, one need only look during late winter for old nests in the sycamores. At this time they have become nearly black and are readily seen if built in the upper limbs. Almost always two nests will be found, for they raise two broods if possible.

These warblers are not only early arrivals but are among the earliest nesters and usually have their nest ready for eggs the last week in April. Because of scanty leafage in the upper branches, the first nests are often built on one of the lower limbs, usually on one of the horizontal ones about two inches in diameter. When thus located, the nests are saddled on top of the limb and fastened to it with strands of spider's web.

The greatest enemies to their nests are Blue Jays, for the latter will eat the eggs in the nests and pull the lining out in an effort to get the last tid-bit. Several nests that I have found met this fate, and when Jays are near the warblers protest their presence. Profiting by such experience, they nearly always build their second nest near the top of the tree after the leaves have come out enough to hide them. Further camouflage is secured by the use of light grey materials and the white spider webs which are applied to the sides. Thus constructed, among the gray-green leaves of the sycamore, they are difficult to see from the ground. These late nests are fastened to very small and nearly upright limbs so that it is usually impossible to climb to and examine their contents. My latest nest record is that of July 11, 1927, when they were seen carrying material to a new nest.

The nests are very neat and compact, being a thin-walled cup composed of bark shreds and fine fibres, over which is laid strands and white patches of spider's web silk. The soft lining is composed of yellow fibre from sycamore balls over which is laid a thin layer of hair. Some nests have rabbit fur in the lining, and others a few soft feathers. The brim curves inward, leaving a circular opening one and three-quarters of an inch across. Below the brim the nest cavity inside is more than half an inch wider.

The three or four eggs have a greyish-white ground color and are well sprinkled with markings, chiefly at the larger end and often forming there an ill-defined wreath. The markings are chiefly small in size and are of various shades of brown and sepia; most specimens also have a few lilac under-shell markings as well. Few warbler eggs are prettier. The average size of the eggs in four Tennessee sets is .69 x .50 inches.

The behavior of the birds at the nests has varied greatly in the ten I have climbed to and examined. One bird sat on the eggs until nearly touched and returned to the nest while I sat on the limb a yard away.

At another nest, the incubating bird left the nest when I had climbed to within eight feet and would not return to it as I waited with my camera. The last mentioned behavior is most often followed.

All the nests I have found have been in sycamore trees except three. One of these was in a cypress which stood in shallow water at the edge of Lake Obion in West Tennessee; one in Knoxville was at the top of a large pine on a hillside; and one at Nashville was built in the top of a large willow. Mrs. Goodpasture (1949) found a nest in the top of a pine, near Linton, twenty miles south of Nashville.

During the present spring, 1953, I have had the good fortune to observe three nests near Nashville. The first of these was under construction on April 10 and the bird had begun setting on April 19, the earliest date on record here. This nest was at the top of a large willow, as mentioned above, which grew in shallow water at the edge of Radnor Lake. It was quite inaccessible. The other two were on Little Marrowbone Creek, near the crossing of the Eaton's Creek Road. The first of these was found on April 28, at which time the bird was incubating. It was fifty feet up and near the top of a sycamore, on a vertical limb and could not be more closely examined. Small branches and young leaves hid the nest fairly well.

The third of these nests, which is shown in the accompanying illustration, was found to contain four fresh eggs on April 30. It was twenty-five feet up and near the end of a horizontal limb, over the creek. This limb had to be roped to higher branches to make it strong enough to bear my weight, since the nest was twelve feet out from the trunk. The nest was saddled on top of the limb and beautifully situated for photographing. It was collected along with the eggs and will be made available for the new Hall of Birds at the Nashville Children's Museum.

REFERENCES CITED

GANIER, ALBERT F. 1935. Spring migration at Athens, Tennessee. The Migrant, 6:2-5.

SMITH. R. DEMETT, 1950. Winter record of Sycamore Warbler at Reelfoot Lake. The Migrant, 21:49-50.

GOODPASTURE. KATHERINE A. A Sycamore Warbler's nest in a pine tree. The Migrant, 20:55.

2112 WOODLAWN DRIVE, NASHVILLE (12) TENN. May 1953.

NESTING OF HORNED LARK IN THE MID-SOUTH

By R. DEMETT SMITH, JR.

On the afternoon of March 8, 1953, accompanied by Mr. Benjamin R. Warriner of Corinth, Miss., and Mr. and Mrs. Ben B. Coffey, Jr., I found two nests of the Horned Lark **(Eremophila alpestris)** about eight miles west of Corinth. The fields, which we were working for open field species, were on the south side of U. S. Highway 72 in the Tar Breeches Creek Bottom. Upon hearing one of the male Horned Larks singing I took a few steps toward him and, luckily, flushed the female from a nest containing three eggs. It was a partially sunken cup near a tuft of the sparse cover grass. Later, about 300 yards west, Mrs. Coffey and I located a male, then spied a female slowly slinking away. A search quickly revealed another nest which was drier, thus lighter in color, than the surrounding terrain. This nest was better lined than the first and contained two eggs which were not as heavily mottled towards the large end as were the others. On the next day Mr. Warriner returned to photograph the nests and found a third egg had been deposited here.

These are the first reported nests of this species in Mississippi although it has been considered to be a nester since 1940 at Holly Springs. Since pertinent data in past issues of THE MIGRANT appear to have been overlooked by some, including A. C. Bent in his life history Bulletin No. 179, it might be well to review the status of the species as a summer resident in the Mid-South. Unless stated, all references are to THE MIGRANT.

Present recorded bird study began in Memphis in January 1928. Limited time was spent on the first two Christmas Censuses (one party) and at other times, looking for the species. On April 12, 1930, two miles south of the Municipal Airport at Memphis, Coffey found two while utilizing a few spare minutes before a Scouter's training mission. The date and the pairing could indicate nesting. Two years later (1932:28) Troop One Boy Scouts reported ten at the airport and from March 6th to May 15th, 1932, the species was found there. On the second visit observers were asked to stay off the field, so all subsequent obervations at this large field (now 1200 acres) were from three sides. This is the reason no special search was ever made for the nests at Memphis. A lookout was kept for newly fledged larks and shortly afterwards (1932:36) on May 29, 1932, eight such were found and were considered to establish nesting records for the field. The species has apparently been present there since. In late June 1932 at Park and Ridgeway Roads, Coffey heard one singing. None were found on return trips the next year. North of town two were seen east of Woodstock on May 21, 1933 (1933:36), but none were seen on follow-ups or, from 1946 thru 1948, after winter at the satellite Field 21 later established nearby. The Naval Air Base, established at Millington in 1943, undoubtedly harbors nesting Horned Larks and could be considered as our No. 3 nesting area.

The second nesting location for Shelby county is the Penal Farm, established in 1928 east of town. On June 16, 1942, one was heard singing there (1942:44) and the species has since been found there regularly in the summer. On about June 5, 1952, Charles McPherson, Jr., and Charles Seahorn, Jr., found a nest there containing young. On June 8th a T. O. S. group found the bob-tailed young out of the nest but caught and photographed them. On July 4, 1952, McPherson found three other young ones on the farm. Near Jackson, Tenn., Killian Roever (1952:49) reports finding five nests in early May, 1952, and another on June 13, 1952. Other West Tennessee records are for Gibson County east of Milan in 1941 by H. C. Monk (1941:37) and for the Halls Army Air Field in 1944 by Burt L. Monroe (1945:11). The former noted the larks from April 12th thru July 12th, giving "every evidence of breeding". The latter observed them thru the spring of 1944, three young birds in early June, and an adult feeding a young one in the open on July 17th. Calhoun (**Journal Tenn. Acad. Sci.** 16 (4) :293-309. 1941) does not list the species for the Hatchie River area of Hardeman and McNairy Counties, June 17th to Sept. 9th, 1939.

The first record of the species in Mississippi at what proved subsequently to be a nesting location (1940:78-79) was a pair on March 12, 1932, in a field near Holly Springs. On July 4, 1940, an adult and an immature were found there. Near Corinth (but in Tennessee) a pair were reported March 26th and April 23rd, 1933, (1933:20) and other individuals in 1942, 1943, and June 8, 1944, (1944:29). A lone bird at Norfolk Landing, Miss., (north of Lake Cormorant) on February 26, 1950, led to later search by Coffey but no Spring records were logged until March 31, 1951, two seen, and May 6, 1951, when one was heard singing (Coffey, Roever). On the following Spring Field Day, May 4, 1952, groups of six, four, and three were found here and five at a point one mile west of Walls (Coffey). Elsewhere in the State a singing male was found at the Tupelo Airport June 7, 1952, (RDS, BC) but none were found in late June, 1952, at the following airports: Meridian, Jackson, Vicksburg, and Natchez (Coffey). On March 15, 1953, three were seen along the levee, a mile north of Friar's Point, Miss. (Coffey and Orval Wood).

Although Eastern Arkansas, to date, has been only sparsely worked by ornithologists, records at Armorel of one of this species on July 8, 1951 (RDS), three to four pairs at Crawfordsville on March 14, 1953, (Coffeys, RDS) and other records on airfields at West Memphis indicate that it is probably a breeding bird there too.

1141 MINNA PLACE, MEMPHIS, TENNESSEE.

SPRAGUE'S PIPIT IN THE MID-SOUTH

By BEN B. COFFEY, Jr.

The third new bird added to the Tennessee list this past winter is the Sprague's Pipit **(Anthus spraguei)**, a species we have been looking for especially in recent years. Horace Jeter has been finding them near Shreveport, La., with extreme dates of September 20 and April 26. A second record for Mississippi, of three collected January 4 and 11, 1953, and two others found partly eaten, in Bolivar County was reported by Merritt G. Vaiden (Migrant, 24:9. 1953). The first record was of a bird collected and another seen in January 1902 at Bay St. Louis, Miss. (Andrew A. Allison, Auk, 23:232. 1906). The only Arkansas record given by W. J. Baerg in "Birds of Arkansas" (1951) is of flocks reported at Ft. Smith, on the western border, in the fall of 1879 by E. Coues. Generally a bird of the short-grass regions of the western prairies, a few accidentals have appeared on the Georgia and Carolina coast and in Florida, Michigan, Arizona and Yellowstone National Park, according to A. C. Bent.

Our first local experience was at Sanders Field, a small commercial airfield a mile south of Walls, Miss. Late on January 24, 1953, I flushed an "unknown" there three times and felt I would know its abrupt notes again. On February 15 at the Penal Farm, a mile east of Memphis, I got up two several times, but unable to find them to assure complete identification I returned to Sanders Field at once. There I flushed four, separately or in twos, a dozen times before I was able to adequately check all field marks of the species. The birds gave two, more often three, abrupt notes which, to me, did not seem Bluebird-like as mentioned in one field guide. The flight was very bounding—sometimes the Pipit remained low over the field, sometimes went up at once and finally dropped down like a Horned Lark. After alighting it often moved some distance. The lower flight will have to be differentiated from that of the many Savannah Sparrows usually present in the same habitat. The white outer tail feathers may be seen and the notes can be a reliable field mark.

After this we worked several fields regularly at least every week-end. The pipit was hard to locate in the area of the original field at the Penal Farm but we found three there on Feb. 21 and two others on the same day in a field two miles west. We continued there until the cover crop became too high, then worked a large pasture adjacent on the east to find four on March 22. We found two still present April 17 but none April 25. This was the only area in Tennessee worked regularly.

On Feb. 22, Demett Smith, Jr., and I spent two hours across the river in Crittenden County, Ark., working eight selected fields. Demett walked up one for the second Arkansas record and at the following field I flushed another.

At Sanders Field on Feb. 22, nineteen T. O. S. members all secured close-up looks at four of the rare species; the count was at least twelve on the field. Luther Keeton and Lawrence Kent on Mar. 7 found twelve on another field, four miles WNW of Walls and just south of T. P. Howard's. When checking the latter on Mar. 15, Orval Wood and I tried a third field (half-mile to its south) and found three. All three of these Mississippi fields (plus non-productive ones) were walked each week-end. The numbers at each tapered off by the end of March, then jumped up again April 5. On the last day found, April 26, the numbers flushed were four, three, and none, respectively. None were found on the next visit, May 3. On Mar. 11 we arrived at Moon Lake, Miss., late in the day and while looking for plovers I flushed a Sprague's Pipit, about a mile north of Friar's Point. It might be noted that at the "T. P. Howard" field we had five on April 5; we noted on April 12 that the field had been cut by then, but we still found ten of the birds present.

672 NORTH BELVEDERE BLVD., MEMPHIS (7) TENN.

NOTES ON WINTER ROOSTS

ANOTHER VULTURE ROOST—At a point forty miles southwest of the roost described by me in THE MIGRANT for March, 1952 (p. 7), another roost was discovered and visited during February, 1953. This location is a few miles south of Fernvale in Williamson County and is twenty-five miles southwest of Nashville. The birds were observed early in February by Miss Ruth White of Franklin, while she and friends were motoring along a new road which threaded this rough, heavily timbered country. Knowing of my interest in the big birds, she kindly offered to pilot me to the locality to make observations. The roost was better than half a mile up a narrow valley, cleared half way up. Leaving our car in the road, at 4 p.m. on Feb. 18, we could see with binoculars that some of the birds were already arriving. Twenty minutes later we had reached a vantage point on the side of the steep wooded hillside, opposite and about 1000 feet from the roost. The entire valley here was heavily wooded and the hilltops rose about 200 feet above their bases. The vultures had chosen to use large beech trees, some 80 feet high and favored a line of these near the top of the slope. Our first count at 4:30 was approximately 130 and this number increased as new flocks soared in, until our final count was 225. Until quite late (5:30), there was much changing of places, making counting inexact but as darkness came on they settled down quietly among the upper branches. Not wishing to disturb them, we did not go closer.

Unlike the roost previously described and which had about 450 Black Vultures (**Coragyps atratus**) and only half a dozen Turkey Vultures (**Cathartes aura**), this one was nearly equally divided in numbers, there being a few more of the Blacks. There seemed to be no tendency toward segregation within the roost. Most of the Blacks came in small loose flocks while the Turkeys singled in. There seemed to be a playful inclination among the big birds, perhaps among the younger ones only, to dislodge their neighbors from a perch as they alit beside them. At the top of one beech, a long slender limb was bent in the shape of an arch by the weight of a dozen birds upon it perched shoulder to shoulder. When still others tried to land, those already there had to yield and sometimes nearly all fell off together. At other times, overloaded limbs snapped like a pistol shot, whereupon most of the flock would arise with a roar of wings and then re-settle after some soaring about enmasse. The great size of these birds, their powerful flight, and so many of them together close at hand, give one a thrill not duplicated by a roost of small birds. We hope to make further observations on this roost during the season ahead.

There is another roost south of Murfreesboro which is about forty miles from each of the two previously mentioned. It is likely that all of the vultures within and about this triangle use one of these three roosts during the winter. — ALBERT F. GANIER, 2112 Woodlawn Dr., Nashville, Tenn.

SHORT-EARED OWLS PREY ON BLACKBIRDS—On the Memphis Christmas Count (December 21, 1952), five Short-Eared Owls were seen in the stand of willow trees on the new closure dam, part of the Memphis Harbor Project.

Short-Eared Owls have not been seen (as far as I know) within the city itself, and this is the first time in recent years that this interesting species has been observed in the Memphis area. Their abundance is caused by a sizable blackbird roost at this spot.

While walking along the edge of the willows, I found many dead birds, among them Grackles, Starlings, Redwings, and Rusty Blackbirds. Several maimed and injured birds were seen in or near the roosting area, while feathers and other parts of dead blackbirds were also seen along the river's edge.

On December 22, George Peyton saw all five owls, and on Christmas day Mr. Howard Barbig and I saw two; all five may have been present on this date since we did not penetrate the complete area in search of the owls.

Peterson's "Guide" says that when flushed, these owls fly moth-like or erratically like the Nighthawk. But ours looked almost like hawks in flight, flapping several times, and then sailing. The big round neckless head, together with the buffy wing patches and the black spot on the underside of the wing-tips, proved the identification of these birds beyond a doubt.

The whole area is somewhat marshy and is fairly inaccessible because there are numerous holes full of water hidden by thick grass.

The blackbirds start to come in at about 4:30 p.m., and steady streams from all directions which look like clouds or smoke in the distance continue to arrive until about 5:25 p.m. By this time the willows are literally dark with blackbirds, and from the road on top of the dam it looks like a burnt-over piece of land.

Short-Eared Owls have been known to congregate where there is an abundance of mice, and with the large number of blackbirds roosting here, a concentration of these owls in this spot seems only natural.—RICHMOND GILL, 1552 Vance St., Memphis (4) Tenn.

A WINTER ROOST IN THE BRUSH CREEK AREA OF WILLIAMSON COUNTY, TENN.—Large winter bird-roosts are spectacular and of intriguing interest to students of ornithology. An unusually large roost of the current winter located in the Brush Creek area of Williamson County about twenty-one miles southwest of Nashville has commanded the attention of TOS members and others interested in natural history.

Late in November my attention was directed toward the general location of such a roost when each afternoon large flocks of Robins flew northwestward out of the South Harpeth Valley after having fed all day in the woods there. At various times flocks of blackbirds flew in the same direction. In mid-January Mrs. Bell, Mrs. Laskey, and I spent several afternoons following the birds. We almost circled the roost at a radius of two miles before locating a logging road that led to the remotely located roost-site. During these circuitous ramblings we observed birds flying roostward from all directions of the compass with the exception of a northwest section which we did not survey. We were deep in the woods near the site when we met Mr. Buford Howell on a logging truck who kindly guided us the last half mile into the actual roosting area.

The roost-site is on a ridge of the Highland Rim, drained by Brush Creek northward toward the Harpeth River. The woods is a cutover and burned-over oak-hickory stand thick with stump-sprouts and saplings twelve to fifteen feet high. In addition to oaks of several species and fewer hickories there are sassafras, sourwood, dogwood, highbush huckleberry, wild plum, smilax, and grapevine, all characteristic of the Highland Rim. The areas most densely occupied by the birds are low thickets formed by low-growing shrubs and saplings with small brushy twigs. This area faces slightly towards the northwest tho the whole area is essentially on a plateau and does not seem to dip into a "hollow". From a look-out tree twenty feet or so above the saplings, Mr. Eugene Ruhr of the Tennessee Game and Fish Division watched from 5 o'clock until sundown as the birds settled and he thoughtfully estimated the roost as extending over close to fifty acres.

Upon going into the roost before the birds arrived, one was met by an acrid odor arising from accumulated droppings. Twigs and small limbs of the thicket were coated with whitewash and the ground underneath was thickly spread with hackberry-like seeds. Whole grains of yellow corn were observed in the droppings. On January 30 sixteen dead Robins were counted in a relatively small area. None showed evidence of having been shot. Dead Cowbirds and Starlings were found later. On one trip a Screech Owl called shortly before the birds came in.

Birds could be heard calling from some distance as they approached the roost. The constant calls of thousands of birds going to roost has been likened to the sound of a flowing stream and the "swish" of twice as many thousands of wings compressing air as the birds rise, turn, and settle again is inimitable. Redwings and Cowbirds were among the first to fly in. Grackles seemed to come during the height of the flight and Robins straggled in late. The constant calling continued as darkness fell so that eventually one could no longer see but only hear the roosting colony.

On the evening of February 7, within a week of its probable height, the composition of the roost seemed essentially "blackbird". Significant numbers of Robins and Starlings were present along with a few Cedar Waxwings but members of the blackbird family predominated. Redwings seemed especially prominent and probably outnumbered Cowbirds and Grackles. Rusty Blackbirds were conspicuous both by sight and sound in smaller numbers. This species composition as a whole was not remarkable, but the number of Red-wings was quite unusual for Middle Tennessee roosts. It seems trite to speak of the impossibility of estimating the size of such a roost in terms of numbers of individuals; guesses stand neither proved nor disproved. Thoughtful gauges, however, of the size of this Brush Creek roost stand in the magnitude of a million birds. I did not visit the Martha roost in 1945-1946, but I understand that it is recalled as the largest local roost in recent years. People who have visited both this roost and the one at Martha judge that during mid-February the Brush Creek roost equalled and maybe exceeded the earlier one. The Martha roost was judged to extend over about 55 acres of young, thickly grown red cedars and to be populated by a million birds of which only a small number were Redwings (Ganier and Schreiber. MIGRANT, 16:63. 1945). It is interesting to note for comparision that a recent article in "Bird-Banding" gives estimates of from five million to twenty million birds roosting on fourteen acres in Arkansas (BIRD-BANDING, 23:155, 1952).

On February 1 a group of twelve T. O. S. members went to a cleared point on a high ridge facing the Brush Creek roost and about a mile and a half away to watch the in-flight. The first small flocks flew over about 4:30 p. m. We could observe birds approach the roost from an angle of about 120 degrees. From about 4:50 to 5:15 there were many separate streams of birds in almost continuous lines converging on the roost from both sides as far as the eye could see. These hundreds of thousands of birds flying across the setting sun and its afterglow moved as an integrated whole, drawn by some inexplicable force to a fifty acre focus from distances up to twenty miles or more. The flight was almost over at 5:20, but Robins still called as they flew overhead half an hour after sundown.

The roost was still being occupied on March third. KATHERINE A GOODPASTURE, 408 Fairfax Ave., Nashville, Tenn.

THE ROBIN ROOSTS OF LEBANON—By an adaptation of the method of the honey hunters described by James Fenimore Cooper in one of the Leatherstocking tales, Mrs. Henry Waters and I, operating from our respective dooryards ten miles apart by road, located a large bird roost last winter. The flight angles converged along the line of the Tater Peeler Pike at a point about four miles south of Lebanon. On the spot observation revealed the birds going to roost in the great cedar thicket on the Monroe Graves hill, exactly at the four-mile point on the Tater Peeler.

Extension of the flight line observations revealed that the birds flew to this roost as far away as the DeKalb and Smith County lines east and northeast and the Rutherford and Davidson County lines south and southwest, a sweep of well over thirty miles. North-northwest observations did not extend beyond seven or eight miles from the roost, but it seems to us safe to say that the feeding ground of the birds of this roost covered a circle at least thirty miles in diameter. It may in fact, have extended beyond that limit.

Though the roost was watched by trained observers from the Lebanon club, the Nashville club, and the Mt. Clemens (Michigan) Sanctuary Association, no estimate of numbers was obtained that I would be disposed to regard as better than a guess. As much as I feel safe in saying is that it would have to be written in seven figures.

Efforts to estimate the relative numbers of the various species occupying the roost were hardly more successful. I think it was predominantly a Robin roost though blackbirds—including Starlings, Redwings, Cowbirds, Grackles—seemed to outnumber the redbreasts. This, I think, was more apparent than real because the blackbirds came in great sweeping, swinging, roaring flights, while the Robins filtered in singly and in groups, gradually, quietly and, in large measure, after darkness had begun to fall. A relatively small proportion of Cedar Waxwings also regularly occupied the roost.

The diversity of predators subsisting on the weak and wounded of the great flocks was notable. Two Red-tailed Hawks were in and about the roosting area throughout the day. At least two Cooper's Hawks were rather regularly there. The Sharp-shinned—I never saw more than one at a time, though I believe there were more—was in and out.

The damage that these flocks received from the few hawks was, however, as nothing to the devastation that their predecessors used to suffer from men. When I was a boy, in the 1890's, the birds roosted for several winters together in the Nolen cedars, on the Murfreesboro Pike, in what is now the southern suburbs of Lebanon. Numbers of men and boys, equipped with lanterns, torches, clubs, and specially constructed flail poles, raided the roosts every night and toted home gunny sacks full of dead birds. Despite this terrific slaughter, the birds persisted in roosting at approximately the same place through a number of winters.

Later, the roosting area was shifted to points along the Coles Ferry Pike, northwest of Lebanon. That area, too, was occupied for a number of winters hand running. Dr. Sam B. McFarland's noted Guernsey breeding farm took its name of Robin Roost from this circumstance.

During the half of a working lifetime that I was away from Wilson County, I heard of but did not see the "Robin roosts". For the past twenty years, I have had fair opportunity for observation. There have been roosts (most of them west of Lebanon), sometimes no more than a few hundred yards from Highway 70-N. Now, for the past two winters, the roosting area has shifted back to the region south of Lebanon.

I am ready to assert, though I cannot quite prove, that every winter for the past three-quarters of a century has seen its concentration of Robins and other gregarious birds in roosts within a few miles of Lebanon.—DIXON MERRITT, Lebanon, Tennessee.

THE 1953 SPRING FIELD DAYS

By T. O. S. MEMBERS

In the eight Spring Field Days reported here, a total of 185 species of birds is recorded. This is apparently the largest list ever totalled in Tennessee. A few possible reasons for the large list are suggested: Field Days were held in such diverse habitats as Reelfoot Lake and Roan Mountain, and in six places in between; the weather was good at all localities; the number of good bird observers in the State is growing as is the knowledge of good habitats to search; and there were several unusual species or late stragglers like the Dowitcher, Rusty Blackbirds, and Pine Siskins to swell the list.

The birds reported from each locality are listed in the "Tabular Record" below. The general information from each locality is in the paragraphs following, and these paragraphs also contain additional information on the birds marked with an asterisk (*) in the table. The following abbreviations are used: "a"—abundant, "c"—common, "fc"—fairly common.

REELFOOT—Reelfoot Lake; May 2, 1953. Seven observers; Howard Barbig, compiler. The Purple Finches were reported by Dr. Charles Pickering.

MEMPHIS—Mostly at Lakeview, Tenn.-Miss., with some records from Riverside Park, Memphis, and enroute between the two locations; May 3, 1953. Fair with slight wind. 64 observers; Ben B. Coffey, Jr., compiler. The Dowitcher was identified by R. D. Smith and Ben Coffey; the Phoebes by R. D. Smith and Alice Smith; the Wilson's Snipe, Long-billed Marsh Wren, and Swainson's Warbler by R. D. Smith; and the Northern Water-thrush by George Peyton.

KNOXVILLE—Same area in the vicinity of Knoxville as previous "Harry Ijams Day"; 18 observers; J. T. Tanner, compiler. The Woodcock was seen by Brockway Crouch. A Shrike's nest contained 5 young. The Orange-crowned Warblers and Swamp Sparrows were reported by Paul Adams. Pine Siskins were present all winter in unusual numbers; the latest date any were seen in Knox County was May 9.

GREENEVILLE—Same area as covered on Christmas Count; May 3, 1953, 5:30 a.m. to 8:00 p.m. Slightly overcast, slight wind, temperature 50 to 80 to 78 degrees. 10 observers; Ruth Reed Nevius, compiler. A Shrike nest with four nestlings was found and photographed by Alfred Irvine and C. M. Shanks. The single Pine Siskin accompanied a Goldfinch flock. Also seen or heard within the area on near dates were: 1 Lesser Scaup a week earlier (Alfred Irvine); 3 Dickcissels on May 4, a Little Blue Heron in "pied" plumage on May 4 and 5, and a Horned Owl during the week (Richard Nevius).

KINGSPORT—Area within a 7-mile radius of Kingsport including Bay's Mountain and a private fish hatchery; May 3, 1953, 5:30 a.m. to 7 p.m. Weather clear, temperature 60 to 80 degrees, very little wind. 15 observers in 6 parties; Ann Harney Switzer, compiler. The Little Blue Heron was seen by Mrs. Switzer. The Red-shouldered Hawk was reported by H. S. Meeks, Jr. The Pipits were seen by T. W. Finucane, who has seen them at the same place, the fish hatchery, on three other occasions and at close range.

Thru late winter and early spring there have been unusual numbers of Bluebirds, Cedar Waxwings, Pine Siskins, Phoebes, White-crowned Sparrows, and Brown Thrashers Unusual spring records are: Common Loon on April 19 (Finucane and others), 8 Baldpates on April 23 and a Ring-necked Duck on April 22 (Adams and Switzer),—all are first records for the Kingsport area. Rare migrants were a Cliff Swallow on April 23 (Ann Switzer), a Blue-winged Warbler on April 19 (Finucane and others), and a Semi-palmated Plover on April 22 (Ann Switzer).

ELIZABETHTON—May 3, 1953. 12 observers; Dr. L. R. Herndon, compiler. The White-rumped Sandpiper was seen at close enough range to see clearly the white rump. The Rusty Blackbirds were unusually late.

NASHVILLE—Mostly at Marrowbone Lake, but observations also made in the vicinity of Nashville; May 10, 1953, all day. Warm and clear, slight wind. About 40 observers. The Black-crowned Night Herons were in a colony. Three nests of Phoebes and at least one of Louisiana Water-thrush were found at Marrowbone Lake.

ROAN MOUNTAIN—Roan Mountain Town to Roan High Bluff and Grassy Bald, also Lake Phillip Nelson; May 10, 1953, 3:25 a.m. to 7:00 p.m. Clear and sunny to partly cloudy, wind 1 to 18 m.p.h., temperature range 42 to 64. Fred W. Behrend, Elizabethton, Tenn. The birds marked with an asterisk were all seen above an elevation of 5500 feet, except for a few of the Juncos seen lower.

TABULAR RECORD OF SPRING FIELD DAYS

SPECIES	Reelfoot May 2	Memphis May 3	Knoxville May 3	Greeneville May 3	Kingsport May 3	Elizabethton May 3	Nashville May 10	Roan Mountain May 10
Pied-billed Grebe	8	1	----	----	----	2	----	----
Double-crested Cormorant	100	----	----	----	----	----	----	----
Great Blue Heron	12	2	1	----	1	1	----	----
American Egret	24	6	----	----	----	----	----	----
Snowy Egret	----	15	----	----	----	----	----	----
Little Blue Heron	18	1	----	----	*1	----	----	----
Green Heron	1	6	8	4	6	1	7	----
Black-crowned Night Heron	----	----	----	----	1	----	*50	----
Yellow-crowned Night Heron	----	3	----	----	----	----	2	----
American Bittern	3	1	----	1	----	1	----	----
Mallard	----	----	----	2	----	----	----	----
Blue-winged Teal	41	30	28	3	8	10	----	----
Baldpate	----	----	----	2	----	----	----	----
Shoveller	3	2	----	----	----	----	----	----
Wood Duck	1	----	----	----	----	2	1	----
Lesser Scaup Duck	12	22	----	----	----	7	----	----

SPECIES	Reelfoot May 2	Memphis May 3	Knoxville May 3	Greeneville May 3	Kingsport May 3	Elizabethton May 3	Nashville May 10	Roan Mountain May 10
Ruddy Duck	8							
Red-breasted Merganser						2		
Turkey Vulture	2	4	3	7	25	7	6	*2
Black Vulture	3	2		1	11		6	
Mississippi Kite		2						
Sharp-shinned Hawk			1			1		*1
Cooper's Hawk			1	1		1	1	
Red-tailed Hawk	1	1			1		3	4
Red-shouldered Hawk	1	1			*1		3	
Broad-winged Hawk			1		1			
Bald Eagle	4							
Osprey	4		5			3		
Duck Hawk	1							
Sparrow Hawk	1	1	8	4	5	4	1	
Ruffed Grouse				1	1			3
Bob-white	5	10	70	8	13	10	fc	
King Rail			2					
Sora Rail	1	4	1					
Purple Gallinule	1							
Coot	50	15						
Semipalmated Plover		7						
Killdeer	8	8	27	8	23	22	14	
Woodcock			*1					
Wilson's Snipe		*1	5	2		3		
Spotted Sandpiper	10	1	21		8	9	7	
Solitary Sandpiper	2	4	6	10	10	6	4	
Greater Yellow-legs		5	1		15			
Lesser Yellow-legs	3	2	2	40	18			
White-rumped Sandpiper						*1		
Least Sandpiper		3			6			
Dowitcher		*1						
Herring Gull			1			2		
Ring-billed Gull		6						
Bonaparte's Gull			1					
Mourning Dove	8		110	43	49	12	fc	1
Yellow-billed Cuckoo	1	3	17	4	8	1	8	
Black-billed Cuckoo			2	1	4	1		
Screech Owl				2				1
Barred Owl	3						1	1
Chuck-will's-widow		1	12	2	2		2	
Whip-poor-will			2	3	1	9	1	2
Nighthawk		1	6	2	6	3	3	

Chimney Swift	16	3	125	104	80	47	c	*2
Ruby-throated Hummingbird	8	15	9	6	6	6	3	--------
Belted Kingfisher	8	4	8	4	2	8	3	--------
Flicker	3	1	33	16	52	24	12	6
Pileated Woodpecker	1	2	12	3	1	--------	4	--------
Red-bellied Woodpecker	8	10	21	6	6	--------	7	--------
Red-headed Woodpecker	5	5	10	2	6	--------	--------	--------
Hairy Woodpecker	2	2	2	1	2	--------	1	3
Downy Woodpecker	4	2	16	11	6	8	8	1
Eastern Kingbird	9	16	33	12	12	2	6	--------
Crested Flycatcher	14	18	50	4	15	--------	6	--------
Phoebe	3	*2	35	29	28	31	*fc	6
Acadian Flycatcher	5	4	16	--------	7	2	c	3
Least Flycatcher	1	--------	--------	--------	--------	1	--------	14
Wood Pewee	25	17	35	7	27	16	fc	8
Horned Lark	--------	4	5	2	3	3	--------	*1
Tree Swallow	1000	1	--------	--------	2	--------	--------	--------
Bank Swallow	3	--------	2	--------	2	--------	--------	--------
Rough-winged Swallow	39	4	30	16	27	38	10	4
Barn Swallow	1	7	18	12	19	10	16	*2
Cliff Swallow	--------	--------	--------	--------	--------	2	--------	--------
Purple Martin	26	4	65	25	29	3	1	--------
Blue Jay	10	16	63	39	94	43	fc	10
Raven	--------	--------	--------	--------	--------	--------	--------	*3
Crow	15	3	120	100	39	104	fc	8
Fish Crow	--------	1	--------	--------	--------	--------	--------	--------
Carolina Chickadee	24	19	90	28	20	37	4	8
Tufted Titmouse	15	11	97	22	30	40	fc	18
White-breasted Nuthatch	2	1	3	--------	3	--------	2	3
Red-breasted Nuthatch	--------	--------	--------	--------	--------	--------	--------	*13
Brown Creeper	--------	--------	--------	2	--------	--------	--------	--------
House Wren	1	--------	2	9	28	5	--------	--------
Winter Wren	--------	--------	--------	--------	--------	--------	--------	19
Bewick's Wren	1	--------	10	1	13	1	fc	--------
Carolina Wren	9	10	150	39	66	34	fc	5
Long-billed Marsh Wren	5	*1	--------	--------	--------	--------	--------	--------
Mockingbird	2	10	165	105	92	45	c	--------
Catbird	7	8	51	32	59	58	11	27
Brown Thrasher	8	7	55	88	6	41	fc	4
Robin	12	11	170	101	129	131	fc	57
Wood Thrush	8	12	80	29	74	33	fc	39
Hermit Thrush	--------	--------	--------	1	2	--------	--------	--------
Olive-backed Thrush	5	4	58	1	4	1	fc	--------
Grey-cheeked Thrush	2	5	--------	--------	--------	--------	3	--------
Veery	2	--------	--------	--------	--------	2	--------	14
Eastern Bluebird	9	5	120	40	39	25	fc	--------
Blue-gray Gnatcatcher	12	18	35	31	13	7	fc	--------

SPECIES	Reelfoot May 2	Memphis May 3	Knoxville May 3	Greeneville May 3	Kingsport May 3	Elizabethton May 3	Nashville May 10	Roan Mountain May 10
Golden-crowned Kinglet								*14
Ruby-crowned Kinglet	1		1				1	1
American Pipit					*20			
Cedar Waxwing	49	1	210	18	38	80	3	
Loggerhead Shrike	1	7	*6	*6			1	
Starling	100	15	300	400	339	198	a	5
White-eyed Vireo	6	19	53	6	23	19	fc	
Yellow-throated Vireo	2	2	17	1	5	3	6	
Blue-headed Vireo		1					1	5
Red-eyed Vireo	20	19	60	5	33	34	c	17
Philadelphia Vireo						1	2	
Warbling Vireo	4	2	3		2	9	3	
Black-and-white Warbler	3	3	32	7	10	9	6	8
Prothonotary Warbler	41	24	10			1	3	
Swainson's Warbler		*1						
Worm-eating Warbler			1			3	3	
Golden-winged Warbler			1					6
Blue-winged Warbler		1		4	1		1	
Tennessee Warbler	35	25	15		1		fc	
Orange-crowned Warbler			*2					
Nashville Warbler	4	1					2	
Parula Warbler	11	8	2		3	2	1	2
Yellow Warbler	18	8	63	27	50	80	fc	5
Magnolia Warbler	1	9	9	2	3	2	2	
Cape May Warbler			8		2	2	1	
Black-throated Blue Warbler					2	2		28
Myrtle Warbler	26	32	29	2	16	6	12	
Black-throated Green Warbler	1	6	12	27	5	14	2	7
Cerulean Warbler	3	3	9		3		fc	
Blackburnian Warbler		3	15	1			2	
Yellow-throated Warbler	5	7	23		1		fc	
Chestnut-sided Warbler	1	1	14		2	1	1	46
Bay-breasted Warbler		1	9		1		5	
Black-poll Warbler	54	5	9	1	4	2	5	
Pine Warbler			12					
Prairie Warbler			11		12	4	fc	
Palm Warbler	87	4	3		1		3	
Ovenbird		5	30	3	4	3	1	21
Northern Water-thrush	2	*1				2		
Louisiana Water-thrush	1	9	14	2	4		*fc	6
Kentucky Warbler	2	8	32	2	24	6	fc	
Yellow-throat	29	39	108	28	52	44	c	9

Yellow-breasted Chat	6	28	57	5	37	34	11	3
Hooded Warbler	1	6	20	--------	11	10	4	5
Wilson's Warbler	1	--------	--------	--------	--------	--------	1	--------
Canada Warbler	--------	--------	4	--------	--------	--------	--------	36
Redstart	15	16	15	4	7	7	2	--------
English Sparrow	100	c	85	50	96	143	fc	--------
Bobolink	--------	52	36	7	8	2	25	--------
Eastern Meadowlark	27	70	130	49	81	66	fc	3
Red-winged Blackbird	200	70	170	48	33	19	36	1
Orchard Oriole	15	24	45	10	21	4	c	--------
Baltimore Oriole	8	16	7	1	8	9	2	--------
Rusty Blackbird	--------	--------	--------	--------	--------	*5	--------	--------
Purple Grackle	200	65	170	200	135	88	fc	--------
Cowbird	67	42	185	9	33	6	15	2
Scarlet Tanager	1	3	7	2	12	2	3	9
Summer Tanager	15	20	42	27	51	1	fc	--------
Cardinal	41	60	210	91	114	95	c	10
Rose-breasted Grosbeak	18	25	37	1	8	2	1	15
Blue Grossbeak	--------	--------	--------	--------	--------	--------	2	--------
Indigo Bunting	49	120	125	39	42	30	c	6
Painted Bunting	--------	1	--------	--------	--------	--------	--------	--------
Dickcissel	20	200	3	--------	--------	--------	9	--------
Purple Finch	*30	--------	1	--------	1	--------	--------	--------
Pine Siskin	--------	--------	*21	*1	2	38	--------	4
Goldfinch	31	8	230	300	92	64	fc	8
Red-eyed Towhee	3	2	80	25	87	32	fc	41
Savannah Sparrow	--------	70	18	--------	10	--------	20	--------
Grasshopper Sparrow	--------	7	24	4	21	9	3	--------
Vesper Sparrow	--------	--------	3	2	1	--------	--------	--------
Bachman's Sparrow	--------	7	4	1	1	--------	--------	--------
Slate-colored Junco	--------	--------	--------	--------	4	--------	--------	*100
Chipping Sparrow	3	--------	64	15	16	17	c	4
Field Sparrow	7	1	100	37	78	50	c	9
White-crowned Sparrow	18	--------	6	19	22	15	--------	--------
White-throated Sparrow	2	36	30	9	19	18	1	3
Lincoln's Sparrow	3	3	--------	--------	--------	--------	2	--------
Swamp Sparrow	3	1	*2	--------	--------	--------	1	--------
Song Sparrow	1	--------	140	75	86	115	--------	27
Total Species	123	127	127	100	120	106	114	66

BUFF-BREASTED SANDPIPER DATE CORRECTION—In typing up the recent record of the Buff-breasted Sandpiper at Mud Lake, Miss.-Tenn. (Migrant, 23:47, 1953) during Mrs. Coffey's absence, I inadvertently gave the date as Sept. 16, 1952, when it should have been Aug 16, 1952.—BEN B. COFFEY, JR, Memphis, Tenn.

THE ROUND TABLE

RECORD FLOCK OF GULLS AT MEMPHIS—On December 26, 1952, I visited McKellar Lake (formerly Tennessee Chute) with Miss Alice Smith of Memphis and saw a flock of approximately 1,500 gulls, most of which were counted while they were on the water.

The following afternoon we returned with Dr. Wendell Whittemore and drove across the causeway to President's Island and walked along the shore line of the lake where we observed thousands upon thousands of dead shad. Many of the fish had been left on shore by a fall in the river level, but most of them were lying under water on the steep bank in a band about three feet wide and several hundred yards long. It is not known how the fish were killed, but they were probably deposited in the manner described by an eddy.

It seems likely that the gulls were attracted by the dead fish although there was little odor because of the prevailing cold weather. We noted that the gulls had feasted on the eyes of a large percentage of the fish on shore, but they had not turned over any of the fish I examined in order to eat the eye next to the ground. Although a number of fish had a small hole picked in their side, only three or four were seen which had been devoured to a greater extent.

On the second trip we closely observed the flock, which appeared to be the same size as on the preceeding day, and counted 80 Herring Gulls of which 60 were in first year, 15 in second year and 5 in adult plumage. It is estimated that sixty to seventy percent of the 1,400-odd Ring-billed Gulls were in immature plumage. Although a careful search was made for other species of gulls, none was seen.

The flock apparently remained for some length of time as estimates of 1,000 on January 1, 1953, and 475 on February 22, 1953, were made by R. Demett Smith and Mrs. Ben B. Coffey, Jr., respectively.

In THE MIGRANT for March 1938 (Vol. 9, p. 13), Ben Coffey, Jr., reported that Ring-billed Gulls were "unusually common all fall and winter (1937-1938), from 20 to 75 were noted in one section." The largest single flock previously reported at Memphis was 212 Ring-billed Gulls seen on the Christmas census in December, 1950. (Migrant 21:75, Dec., 1950).

Since McKellar Lake has been cut off from the Mississippi River only little more than a year it will be interesting to see whether it will become a popular wintering place for gulls as have some of the T. V. A. lakes since they were impounded (See note by A. F. Ganier in Migrant 16:13-14, March, 1945). — FREDERICK T. CARNEY, 419 Frank Nelson Bldg., Birmingham (3) Alabama.

SANDERLING RECORDED NEAR MEMPHIS — In the cooperative study of bird distribution and migration in the Memphis Area our field work takes us within a 125-mile or more radius of home. In covering the various habitats and areas within this larger area an attempt is made to coordinate our efforts with Ben Coffey, Curator of the Memphis Chapter, so that duplication may be avoided and varied habitats worked. During the fall of 1952 the writer took as his responsibility the Sardis Dam site, about 55 miles south of Memphis. On one of the trips there a new species for the area was found. On October 12 two Sanderlings in the first year fall plumage were observed feeding along the sandy beach of the then much-lowered reservoir. They were approached to within twenty feet and flushed repeatedly while I noted all pertinent field marks. We have watched for this species but this is our first record. Perhaps it will never appear on the mud flats and borders which we customarily work for shorebirds (other than meadow species). If the limited expanse of sand, placed artificially at one point of a large man-made lake, is the only type of terrain favored by this species between the Great Lakes and the Gulf Coast, we have to make quite a number of trips to the few places of this type to secure such "long-shot" records. W. H. Deaderick (Wilson Bulletin, Dec. 1938, 50 (4):265) gives two records for Hot Springs, Ark.: Sept. 16 and Oct. 29, 1936. These were probably at the power dam lakes near there. There are a few inland records for Alabama (See Imhof, Migrant, Mar. 1950:6).—R. DEMETT SMITH, JR., Memphis, Tenn.

SPRING RECORD OF BLACK-BELLIED PLOVER AND OTHER OBSERVATIONS OF INTEREST IN ELIZABETHTON AREA—A lone Black-bellied Plover in change of plumage from winter to summer not fully completed, breast and belly not being solidly black but somewhat speckled, was spotted by the writer in a plowed field on the County Farm a few miles east of Elizabethton in the morning of May 17, 1953. It was some 400 to 500 feet away when first seen, moving about on the ground apparently feeding, and permitted approach to within less than 150 feet before increasing the distance between itself and the observer by running. When looked for in the afternoon by Mrs. Behrend and myself, the bird was located in a gravelly area adjacent to the plowed field. After watching it for some time, the bird was deliberately caused to fly so as to observe additional markings as described in literature, as well as to hear its voice. The Black-bellied Plover is termed a very rare transient in Ganier's "Distributional List of the Birds of Tennessee". A check of the MIGRANT'S indices of recent years reveals one published record in the State since 1944, that of R. Demett Smith and Ben B. Coffey near Lakeview on May 18, 1952 (June 1952 MIGRANT, Vol. 23, page 32), I saw a second Plover in the same place on May 20.

Another observation of interest on May 17, at an earlier hour, was of a Common Loon near the Dam of Lake Phillip Nelson in Carter County at 3500 feet altitude. On the identical date a year ago, a Common Loon was seen by the writer on Watauga River at Rasar Farm east of Elizabethton. These records indicate late migratory movement of the species through this area.

Also on May 17, in the afternoon, a check was made by the writer of the presence of Bachmans Sparrows near the Southside community west of Elizabethton where the species had been located in the spring and summer of 1951 and 1952 (September 1952 MIGRANT, Vol. 23, page 49). This check resulted in hearing one bird singing. Earlier this spring, in the mornings of April 18 and 24, one Bachman's Sparrow in each instance was heard singing on a hillside south of the highway leading from the Siam community to Wilbur Lake, approximately five miles east of Elizabethton. In the same locality two were heard singing in the morning of May 16.—FRED W. BEHREND, 607 Range Street, Elizabethton, Tenn.

NOTES ON THE 1952 FALL MIGRATION OF TENNESSEE AND BAY-BREASTED WARBLERS—In the October, 1952, issue of "The Tennessee Warbler", in regards to the fall warbler migration in the Memphis area, I wrote the following: "More than the usual number of warblers was observed during the fall migration. Flocks were seen daily for one and one-half months previus to the end of September. Some are still passing through. The Tennessee, usually the most common fall warbler was noticeably lower in numbers." As for the Bay-breasted Warbler in the Memphis area. "For the past few seasons this warbler has been exceeded only by the Tennessee in numbers, but this year could hardly be called common."

It was with some surprise that several months later in the February, 1953, "Audubon Field Notes" I noted reports from the eastern states which referred to the above normal numbers of these two species. From the Middle Atlantic Coast region the report was, "All points reported heavy warbler flights of Blackburnian, Cape May, Bay-breasted and Tennessee Warblers which passed through in huge numbers." From the South Atlantic Coast Region, "An amazing abundance of Tennessee, Cape May and Bay-breasted Warblers." From Florida, "Interesting Tennessee Warbler Records." From the Hudson-St. Lawrence region, "Tennessee Warblers were generally reported." However, the Middlewestern Prairie Region and Central Southern Region, which include the Mississippi Valley and Memphis area, make no special reference to either of these two species.

I, therefore, conclude that the extraordinary numbers of Tennessee and Bay-breasted Warblers noted in the East coincided with a noticeable decrease of these two species in the Memphis area, and probably in all of the Mississippi flyway. Indications this spring are that the spring migration of these species is again normal in the Memphis area, as the Tennessee has again regained its status as our most common warbler migrant, and Bay-breasted, never as common here in spring as in fall, is normal.—HOWARD T. BARBIG, Route 10, Box 424, Memphis, Tenn.

SPOTTED TOWHEE AT GERMANTOWN, TENNESSEE—On Dec. 20, 1952, I banded a beautifully marked male Spotted Towhee (**Pipilo maculatus**). The bird remained in or near our place on Riverside Road, Germantown, just east of Memphis, and was closely observed on Jan. 25, 1953, by the Ben Coffeys and other T. O. S. members on the monthly field trip. It continued to visit the feeding table almost daily until April 3, then reappeared with a cool spell from April 10 to April 28, inclusive. Many Red-eyed Towhees were present, and during the last mentioned period a pair of these were nesting nearby. The Spotted Towhee is a first record for Tennessee and appears to be one of several recently reported east of their normal range. The first record for Louisiana, where many westerners appear long before they are found here, was not until Dec. 22, 1950, at Hackberry (Aud. Field Notes 5 (3):210). Two appeared in northwest Louisiana last fall (Aud. Field Notes 7 (1):20) and one was reported later at New Brunswick, N. J.—CHARLES SEAHORN, JR., Route 2, Germantown, Tenn.

BIRDS AND SEVENTEEN-YEAR LOCUSTS—In late spring of 1953 a tremendous brood of seventeen-year locusts or cicadas emerged in the Knoxville area. These insects were eaten by a variety of birds. I watched thru binoculars quite a flock of Cedar Waxwings flying here and there thru the trees and capturing the cicadas amid hissing and squawks above the high-pitched squeaks of the Waxwings.

Normally I fill my quart sunflower seed holder once a day and the peanut butter feeder at least twice. The seeds are eaten by Cardinals, Towhees, Titmice, Chickadees, White-breasted Nuthatches, and Blue Jays. At this season peanut butter is taken by Tanagers, Thrashers, Catbirds, Wood Thrushes, Robins, Mockingbirds, Wren, and Woodpeckers as well as by the seed eaters. When I went to Nashville on May 8, I filled both feeders. Five days later the peanut butter had not been touched and the sunflower seeds were only half gone. Only the Nuthatches were observed on the feeder. I was puzzled to find my feeders almost as I had left them, but now know that the cicadas were the explanation. Since the cicadas have decreased by the end of May, birds have been returning to the feeder. —MRS. ROBERT A. MONROE, 1424 Tugaloo Drive, S.W., Knoxville (16) Tenn.

THE ANNUAL MEETING OF THE T. O. S., 1953

The Annual meeting of the Tennessee Ornithological Society was held at Nashville on May 9-10, 1953. Besides the regular business meetings, a program of field trips and other activities was prepared by the host, the Nashville Chapter.

On Saturday morning there were field trips in the Nashville vicinity and visits to the homes of Nashville members, followed by luncheon at the Peabody College Cafeteria. During the early part of Saturday afternoon the business meeting of the directors was held at the Nashville Children's museum while other members inspected the exhibits of the Museum or attended a moving picture there. A fine exhibition of bird paintings by Earl Henry inspired much favorable comment.

At the Business Meeting, reports from the Society's officers were heard and approved. The Society, including its finances, appears to be in fine condition. An invitation was read from the Kentucky Ornithological Society to join them in their annual meeting at Cumberland State Park, Kentucky, in October 1953. More details on this will be printed in a later issue of THE MIGRANT. There was a brief and spirited discussion of the best place for the 1954 annual meeting of the T O. S., and it was voted

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that we should go to Standing Stone State Park, May 8 and 9, 1954.

A brief program of papers was presented in the auditorium of the Museum, composed of the following: "Birding Around Chattanooga", by Mrs. E. M. West; "Some Interesting Birds of Florida", by Don Hurley; "Building a Big List", by Dan Schreiber; "Notes on the Nesting of the Sycamore Warbler", by Albert F. Ganier; "Invasion of Western Birds Into the Memphis Area", by Ben B. Coffey, Jr.

Dinner was held that evening at the B. and W. Cafeteria with 62 people present. President Ganier presided over the introduction of the people present and introduced the speaker, Mrs. R. A. Monroe of Knoxville, who described some of her experiences in "Birding in South Florida."

Sunday was a day primarily for field trips. Some groups started early in the Nashville area and everyone later assembled and then scattered around the head of Marrowbone Lake for field work. The observations made are summarized in the reports of Spring Field Days appearing in this issue. Seventy-two people met for lunch at the Rawlings Resort and for the business meeting that followed. Members were present from every corner of the State, the largest out-of-town delegation being from Memphis.

The following officers were elected for 1953-1954: President, Mrs. Robert A. Monroe of Knoxville; Vice-President for West Tennessee, Miss Nelle Moore of Memphis; Vice-President for Middle Tennessee, Miss Jennie Riggs of Nashville; Vice-President for East Tennesse, Mrs. E. M. West of Chattanooga; Secretary, Mrs. Robert Dunbar of Oak Ridge; Treasurer, Lawrence C. Kent of Memphis (re-elected); Editor, James T. Tanner of Knoxville (re-elected); Curator, Albert F. Ganier of Nashville; Director-at-Large for West Tennessee, Eugene Cypert of Paris; for Middle Tennessee, Mrs. Henry Waters of Lebanon; for East Tennessee, Ed Gift of Kingsport.

Adjournment of the business meeting ended the formal part of the meeting, and most people rapidly departed for their homes. It was an enjoyable session for all who came.

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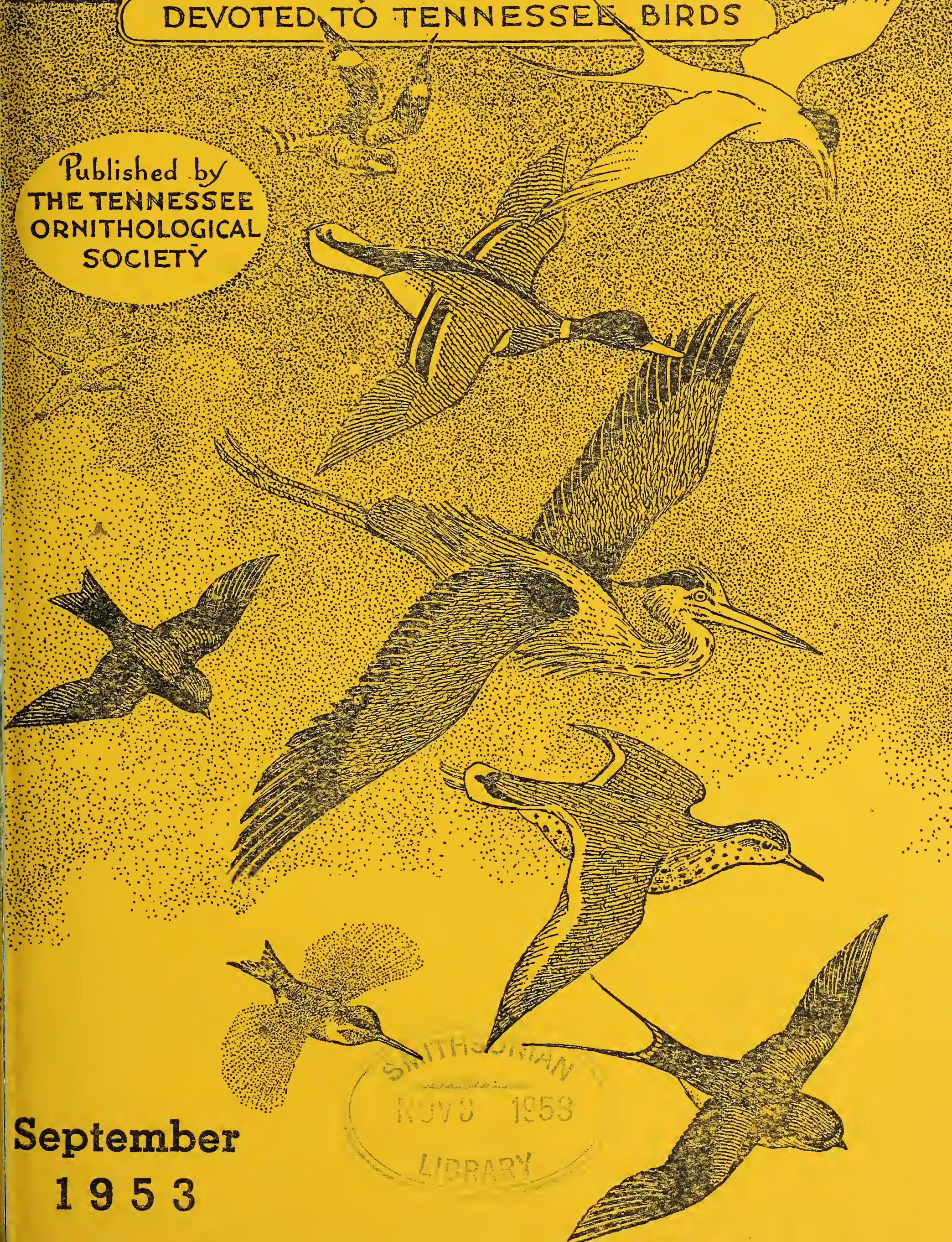

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THE MIGRANT

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VOL. 24 SEPTEMBER, 1953 No. 3

STATUS OF THE RUFFED GROUSE IN TENNESSEE

By VINCENT SCHULTZ

Data are scarce on the former and present range of the Ruffed Grouse **(Bonasa umbellus)** in Tennessee. Bump, Darrow and others (1947) have attempted to delineate the present and former range of the species in Tennessee (Figure 1). As reported by Darrow (correspondence, 1953), the present range was established on the basis of a letter received from the Tennessee Department of Conservation which indicated grouse as being present in "all (counties) east of (and including) Pickett, Overton, Putnam, DeKalb, Warren, Grundy and Marion, except Union, Grainger, Knox, Loudon, McMinn, Meigs, and Bradley which were noted with question marks. In addition, the counties of Sumner, Davidson, Cheatham, Dickson, Humphreys and Hickman were also (indicated as having grouse). With respect to the original range, there unfortunately were no specific records for grouse in Tennessee beyond the territory noted above and (the writer) did not indicate what the the former limits may have been. (The former range) in Tennessee was estimated by inference from the situation in the two adjoining States." Rhoads (1895) made no reference to grouse west of the East Tennessee Valley and believed the bird was rare in all localities. According to Ganier (1928), Ruffed Grouse were formerly abundant in Middle and East Tennessee, being scarce in 1928 on the Cumberland Plateau and in the Unaka Range. In 1933 he reported grouse as "still to be found in much reduced numbers on the Cumberland Plateau and in the mountains along the eastern boundary," and by correspondence (1953) reported unsuccessful attempts to observe the bird in the western Highland Rim. Although presenting no references, McClanahan (1940) indicates the original breeding range of the species as all of Tennessee except the tier of counties on the Mississippi State Line; the present range is shown as all of Tennessee lying east of a line from Dale Hollow Reservoir to a point slightly north of the southeastern edge of the Cumberland Plateau. The lack of references and non-agreement with other sources casts doubt upon the validity of this report. Caldwell and others (1947), in a publication for school children, state that "The grouse occurs throughout the Cumberlands and Great Smoky Mountains." Undoubtedly, the distribution as presented by Bump and others (1947) is the most reliable available in the literature. The former and present range in Tennessee as determined by these writers agrees in general with current findings in Tennessee; but verification and a few revisions should be made.

TABLE 1 STATUS OF THE GROUSE IN TENNESSEE AS DETERMINED BY PERSONAL INTERVIEW OF HEADS OF FARM HOUSEHOLDS

Farming-type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL
Number of Respondents	27	97	489	69	131	261	200	139	116	538	306	137	57	862	131	3560
Relative Sampling Error†	16.35	7.57	4.97	6.73	6.76	4.58	5.90	6.66	8.82	3.20	5.66	7.69	10.21	2.96	6.53	1.51
Number Reporting Grouse on Farm	0	0	0	0	0	1	2	2	1	5	13	65	1	127	62	279
Per Cent Reporting Grouse on Farm	0	0	0	0	0	0	1	1	1	1	4	47	2	15	47	8
Relative Sampling Error†	..	..	..	..	..	96.34	69.76	66.43	..	43.74	34.17	14.70	96.60	10.35	14.52	6.75
Number of Respondents‡	16	78	341	58	94	184	158	120	95	417	239	116	45	724	122	2807
Number Reporting Grouse on Sampling Area	0	0	0	0	0	2	2	1	2	4	23	87	3	171	97	392
Per Cent Reporting Grouse on Sampling Area	0	0	0	0	0	1	1	1	2	1	10	75	7	24	80	14

† Computed by use of analysis of variance

‡ Includes only respondents that have lived on area, or not over 2 miles from area, during the last five years.

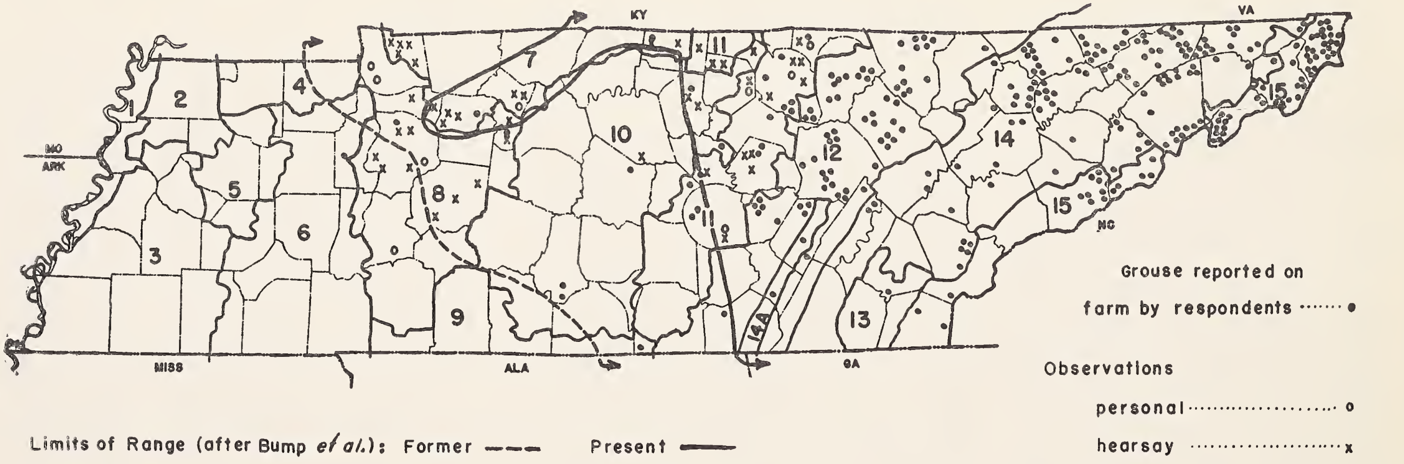
The western limit of the original grouse range in Tennessee is of particular interest as the true picture is all but obliterated in this area. Ridgeway and Friedman (1946) state that "The western limit of the range of this race is ill defined because of the fact that the species has been extirpated over much of the Mississippi Valley region where it formerly occurred. **Bonasa umbellus moticola** integrades with **mediana** in central southern Michigan, eastern Indiana and western Ohio, and probably also formerly in western Kentucky and Tennessee." Bump and others (1947) report Audubon as indicating the occurrence of grouse south of Tennessee along the Mississippi River; however, they decided to omit this report on their map. Because of the uniqueness of the flora on the "Mississippi Bluff", the writer believes that it is entirely possible that Ruffed Grouse existed along the bluff, although reports from this region are not available.

Lack of information on game animals of Tennessee made it imperative that the Tennessee Game and Fish Commission conduct a state-wide wildlife survey. Primary field work for this project was begun in September, 1950 and completed approximately 13 months later. The survey procedure (Schultz, 1952) included a method of sampling known as "area sampling" which permitted the computation of reliable sampling errors (Table 1). In brief, the method consisted of the random selection of 1000 "sampling areas" in Tennessee which contained, on the average, five dwellings per area. Farmers dwelling upon these areas were interviewed concerning wild animals existing on their farm and the "sampling area." Data collected on the Ruffed Grouse are presented in this report (Table 1, 2 and Figure 1). Sampling errors indicate the adequacy of sampling for all interviewees and all respondents reporting Ruffed Grouse on their farms. The latter is an indication of the relative density and dispersion of the bird within the farming type; i.e., the smaller the sampling error, the greater the dispersion and relative density of the Ruffed Grouse population in the farming-type.

In addition, notes were taken (Table 2) on personal observations and hearsay reports of Ruffed Grouse from all respondents dwelling west of the Cumberland Plateau, a region of grouse scarcity. Such reports for the Cumberland Plateau and eastward were not obtained as it was rather common knowledge that the bird was present in this region.

To insure a complete coverage of "wilderness areas" which were inadequately sampled by the sampling method, interviewers contacted persons other than those on "sampling areas"; these data are not included in the tables and figure. Interviewers made a special attempt to obtain information concerning grouse in Perry, Stewart and Wayne Counties which are located on the western periphery of the Ruffed Grouse range in Tennessee.

A questionnaire was also sent to conservation officers requesting information on the status of the Ruffed Grouse in their assigned county. Officers were requested to indicate the ruffed grouse as common, rare or absent in their county. An additional request for localities of occurrence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Limits of Range (after Bump et al.): Former ——— Present ———

Figure 1. Distribution of Ruffed Grouse reports in Tennessee, from respondents reporting Grouse on farm, and from personal observations and hearsay reports on other areas.

Physiographic regions and farming type numbers: Mississippi Bottoms, 1; Plateau Slope of W. Tenn., 2, 3, 4, 5, 6; Highland Rim, 7, 8, 9, 11; Central Basin, 10; Cumberland Plateau, 12; Valley of E. Tenn., 13, 14,; Sequatchie Valley, 14A; Unaka Range, 15.

was sent to officers listing Ruffed Grouse as rare. The reports are summarized in a later paragraph.

Although the data collected do not permit delineation of ranges of subspecies, they do establish the present range of the Ruffed Grouse in the State. The data obtained by personal interview have been tabulated on a farming-type basis (Table 1 and Figure 1). The farming-types (revised from Luebke and others (1947) represent physiographic regions as shown in Figure 1. The distribution of 279 (or 8 percent) of the respondents reporting Ruffed Grouse on their farms is presented in Figure 1 and the per cent reporting Ruffed Grouse on their farms and "sampling area" in Table 1.

The primary Ruffed Grouse range in Tennessee consists of: (1) Cumberland Plateau, (2) upper Valley of East Tennessee, and (3) Unaka Range. The comparatively few reports in the southern Cumberland Plateau and Unaka Range is the result of relatively few farmers being contacted in these regions. Additional field work in these two areas disclosed that the Ruffed Grouse is fairly common in both regions; however, the northern portions apparently have heavier populations.

The western edge of the original range of the species in the State was probably slightly west of the West Tennessee River with the southwestern boundary being located in Perry County, then running diagonally southeastward across the State to the southwestern edge of the Cumberland Plateau. Ruffed Grouse still occur in isolated localities in this western range; but their number is small. An attempt was made to obtain information on grouse south of this western area in Hardin and Wayne Counties but respondents were unable to furnish reports of grouse either past or present. It is interesting to note that these counties, particuarly Wayne, are heavily forested and superficially appear to be ideal grouse habitat. Perry County, lying directly north of Wayne County, also appears to be ideal grouse habitat, but only one grouse report was obtained in this county, this report being a visual observation on Hurricane Creek by a game technician. Respondents north of these counties reported quite frequently the occurrence, and even abundance, of Ruffed Grouse during past years, but reported that currently only a few exist. This general area, which is known as the western Highland Rim, is heavily forested and, with proper restocking and protection, may again maintain a huntable population. The reports obtained in the Central Basin may actually be misidentification on the part of respondents, but it should be noted that they were from typical regions in the Basin. Although some writers have made reference to the past presence of grouse in the Basin, they have not listed references, making it difficult to establish the original range as being throughout this region. The bird probably occurred originally in various localities throughout the Central Basin, but nowhere as abundant as in the surrounding Highland Rim.

The hearsay reports and personal observations of Ruffed Grouse in localities west of farming type 12 (Figure 1) assist in establishing the range

TABLE 2. PERSONAL OBSERVATIONS AND HEARSAY REPORTS OF RUFFED GROUSE WEST OF FARMING-TYPE 12.

Personal Observations:

Year	County	Location
1950	Cheatham	Marrowbone Hills
1916	Humphreys	Vicinity Bold Spring
1948	Jackson	Vicinity of New Hope
1930	Overton	Vicinity of Howard
1952	Perry	Hurricane Creek
1949	Pickett	Vicinity of Byrdstown
1936	Stewart	Ft. Henry
1952	Stewart	Blue Spring Creek
....	Warren	Ben Lomond Mountain

Hearsay Reports:

Year	County	Location
....	Cheatham	Vicinity of Sycamore
1890	Cheatham	Vicinity of Kingston Springs
1911	Cheatham	Vicinity of Sycamore
1949	Cheatham	Cheatham Wildlife Mgt. Area
1945	Clay	Vicinity of Celina
1926	Coffee	
	DeKalb	Vicinity of New Home
....	Dickson	
1850	Dickson	Ruskin Cave
1910	Dickson	Vicinity of Van Leer
1910-15	Dickson	Vicinity of Van Leer
....	Hickman	Lick Creek
1911	Hickman	
1921	Hickman	Vicinity of Beaverdam Springs
1926-31	Hickman	Vicinity of Centervile
....	Humphreys	Vicinity of Kentucky Lake
1910	Humphreys	12 Miles West of Waverly
1900	Humphreys	
1915-16	Humphreys	15 miles north of Waverly
1925	Humphreys	
1931	Humphreys	Duck River Bottoms
1935	Humphreys	
1935	Humphreys	White Oak Creek
1951	Humphreys	Vicinity of Trinity
....	Houston	Vicinity of Erin
1920	Houston	Vicinity of Salem
1916	Jackson	Vicinity of North Springs
1948	Jackson	Vicinity of New Hope
1951	Jackson	Vicinity of North Springs
....	Lawrence	
....	Lawrence	
....	Macon	Vicinity of Cross Roads
1940	Macon	Vicinity of Galen
1944	Macon	Long Fork Creek
....	Overton	Vicinity of Wirmingham
....	Overton	Vicinity of Wirmingham
....	Overton	Vicinity of Alpine
1925	Overton	Vicinity of Dwindle
1949	Pickett	Vicinity of Bloomington
....	Smith	East of Carthage
1911	Smith	
1949	Smith	Vicinity of Edgefield
....	Stewart	Shelby Creek
1915	Stewart	Vicinity of Bumpus Mills
1930	Stewart	Vicinity of Bumpus Mills
1930	Stewart	Vicinity of Bumpus Mills
1931	Stewart	Vicinity of Indian Mound
....	Sumner	
1951	Warren	Ben Lomond Mountain
....	White	Vicinity of Walnut Grove
....	White	Vicinity of Walnut Grove
1935-38	White	Vicinity of Walnut Grove
1950	Wilson	Vicinity of Coinsville

of the species over this area and verify the range as described by Bump and others (1947).

Information on population trends was requested from respondents reporting Ruffed Grouse as present on "sampling areas." Population trends were requested only from persons residing on or within two miles of the area during the last five years. Of 398 persons interviewed, 60 (or 15 per cent) reported the population up during the last five years; 62 (or 16 per cent) reported down; 3 (or 1 per cent) as fluctuating; 116 (or 30 per cent) reported no change; 148 (or 38 per cent) reported trend as unknown. Similar relationships in the reports occurred in the primary grouse range farming types 12, 14 and 15. The small sample from other farming-types prevented the drawing of accurate conclusions concerning population trends.

The status of the Ruffed Grouse in the different counties in Tennessee, as reported by conservation officers, is as follows. Grouse were reported to be common in the counties of Anderson, Blount, Campbell, Carter, Claiborne, Cocke, Cumberland, Fentress, Grainger, Greene, Hawkins, Putnam, Scott, Sevier, Unicoi, and Van Buren. They were reported to be rare, location unknown, in Dickson, Johnson, and Roane Counties, and rare over the entire county in Grundy. In the following counties grouse were reported to be rare, present at the specified locations: Bledsoe—Cumberland Mountains, Walden Ridge; Bradley—White Oak Mtn.; Hamilton—Walden Ridge; Hancock—Clinch River Bluff near Sneedville; Humphreys—Richland Creek area, Little Richland Creek; Jackson—New Hope community; Jefferson—"The Rocks" between Talbot and White Pine; Knox—House Mtn., Roaring Springs, Clinch River, Hickory Creek; McMinn—wooded knobs near Englewood and Chilhowee Mtn.; Marion—Foster Hall area; Meigs—Concord; Monroe—Tellico Wildlife Management Area; Morgan—western part of county near Rugby; Overton—Crawford; Pickett—Pickett State Park; Polk—Cherokee National Forest; Sequatchie—tops of mountains and gulfs; Sullivan—Bays Mtn., Reedy Creek Bluff; Union—Point No. 19 on Norris Lake; Warren—Harrison Ferry Mtn.; Washington—Clarks Creek; White—Bon Air Mtn. From all other counties, no grouse were reported.

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THE ROUND TABLE

MEADOWLARKS "INVADING" A CITY BOULEVARD—It has been reported that several thousand Meadowlarks landed on Rossville Boulevard, Chattanooga, about midnight, Sunday, April 5, 1953. The Boulevard is a well-lighted, six-lane thoroughfare with stores, businesses, and some houses along its length, and is the main highway from downtown Chattanooga to Rossville, Ga., about five miles away.

Policeman Jerry Perry's attempt to disperse the birds along a two-mile stretch were not too successful, because they flew up unwillingly for each passing car and immediately settled back to the pavement. The aftermath of the event is not known because Mr. Perry was forced to return to his regular duties.

It is possible that this large flock were migrating Meadowlarks coming to roost for the balance of the night in what appeared to be a sizeable and smooth field, and being tired and ready for rest, they were unwilling to depart in spite of their poor choice.—MRS. E. M. WEST, Clayton Ave., Chattanooga (4) Tennessee.

BLUE GROSBEAKS NEAR CHATTANOOGA—On June 3, 1953, while observing birds in Chickamauga Park, Ga., about four miles from the Tennessee line, I saw a male and female Blue Grosbeak **(Guiraca caerulea)** feeding on the edge of a field of ripe wheat. I was accompanied by Mrs. Frances Barnwell and Mrs. June Hall, but the species was a stranger to them. We watched the pair at close range on opposite sides of the large field for about 30 minutes. I was out of the State and unable to return to the site until July 9, but found the pair at the same location obviously carrying food to nestlings. After a five-minute wait, the female was seen to go to the nest. Anxious not to disturb them, I went only close enough to confirm the location of the nest with young but did not lower the branch to count them. The nest was located about six feet from the ground in honeysuckle vine entwined in a small winged elm tree. On July 15 this pair was feeding at least two young out of the nest.

Also on July 9, another pair was seen about one-half mile distant from the first and just a few minutes later. They allowed close approach and the male sang almost continuously. This pair could not be located on July 15, but on August 12 they were found feeding young, one out of the nest and one standing on the rim of the nest. This nest also was in a small winged elm tree at eye level, and there was much paper entwined in the under side.

On July 15 a third pair of Blue Grosbeaks was found about a mile or so from the first, feeding at least two young out of the nest.

Two nests were located a few feet from the edge of a large wheat field. There are ten such fields in the park, and it is thought that a close check might produce even more nesting Grosbeaks.

On July 23, a singing Grosbeak was heard on N. Moore Road, on the northeast edge of the city, in Tennessee. I was accompanied by

Mrs. Barnwell and others. We crossed a pasture in the direction of the sound and found it was bordered by a cut-over wheat field. We did not, however, see or hear this bird again. On August 4, while visiting a fish hatchery a few miles east of Chattanooga, I heard and saw another pair of Blue Grosbeaks. They were across a brook, and it was impractical to approach closely enough to see if there were young in the area. —MRS. E. M. WEST, Clayton Avenue, Chattanooga (4) Tennessee.

SONG SPARROW EXTENDING NESTING AREA WESTWARD—While leading a group of bird students on May 14 at Cookeville, Tennessee, I was greatly surprised to hear a Song Sparrow in full song. We looked for the nest along a small stream but were not successful. Professor Richmond of Tennessee Tech, reports a pair in the spring of 1952 which nested near his home, a short distance from the area occupied by this 1953 pair.

This writer also found a pair of these birds at Tracy City in July 13 (?) (or earlier) of 1953 in the thicket near a small stream in the town. This seems to indicate that this species is moving westward from the Tennessee River Valley along the Cumberland Plateau. Should any reader have similar records they will be appreciated.—GEORGE R. MAYFIELD, "Nashville Banner", Nashville, Tenn.

THE SEASON

MEMPHIS—Spring was relatively mild but with much rain in early March and early May, followed by a drought interrupted briefly in mid-July. As last year, a record-breaking June gave us an extremely early and hot summer. Spring was marked by average shore bird arrivals (contrasting with winter stragglers and very early arrivals last year) and by early arrivals of the first smaller transients. The only noticeable peak was about April 19 in Overton Park, while on April 26 moderate numbers of Orchard Orioles, Indigo Buntings, and Dickcissels were noted in open situations in the county. The latter was a week after the first wave was noted in southwest Louisiana. The Golden Plover was present Mar. 7-Apr. 26, chiefly Mar. 14-Apr. 5. As last spring, it was about one-third of past maximum with 646 near Crawfordsville, Ark., Mar. 14, and 952 near Walls, Miss., Mar. 28. The Apr. 26 record was an individual in winter plumage. A cotton field slough near Walls furnished most of our other shorebirds, the highlight being Greater Yellowlegs, 48 on Apr. 12 and Apr. 19, and 28 still present Apr. 26. The flock was 4 to 5 times the largest number ever seen here in the last 25 years. A more western species was represented by two Rough-legged Hawks seen near there Apr. 5 and like the only previous record, just south of the Tennessee line. A Broad-winged Hawk at Spring Lake S. P., Miss., on Mar. 29 (E. Barbig, King, and Julia) and one in Overton Park, Apr. 1, are our earliest local records. Nine Blue-gray Gnatcatchers on Mar. 21, Overton Park (Peyton, BC), were our second earliest (6 on 3-19-33). At the Penal Farm, Apr. 17, three male Bobolinks were about a week early but flocks of the species showed late. Of interest (normally uncommon) were a Cape May Warbler, May 1, Overton Park (the Wm. Hearns and Ellen Stringer) and a Lark Sparrow at the Penal Farm Apr. 17. We might add: Golden-winged Warbler, 2, Apr. 28, Overton Park; female Wilson's Warbler, May 1 & 2, and a Golden-winged on May 17, by Leah Torti at her home. Lincoln's Sparrows continued uncommon, but 25 Rose-breasted Grossbeaks, May 3, were more than the total for the last seven Spring Field Days combined.

The extreme summer heat slowed avian activity and field work but several consecutive week-end trips were made along the state line east to state parks near the Tennessee River. High points were visited, some where Whip-poor-wills have been found, in a search for Scarlet Tanagers, and we tried for Blue Grossbeaks in West Tennessee. Two new colonies of Cliff Swallows were found on the Tennessee River. Each May on our return from the annual meeting we run to make the Johnsonville bridges before dark. On May 10 we found the species nesting low on easternmost piers of the NC&STL RR bridge there. About 50 nests, we believe, with 24 lined across the recess facing us. On June 21 we counted about 60 nests under a concrete balcony to the control building at the east end of Pickwick Dam. In previous years we had checked the lock and dam from the west shore. The largest colony, at the Perryville bridge, had about the same number of nests, July 12, but the Savannah colony appeared to be smaller and the nearby Snake Creek group larger, May 9. At Natchez Trace S. P. on July 12, Mrs. Coffey and I watched a pair of Worm-eating Warblers feed three young, capable of short flights, in the same ravine where I watched one sing June 8, 1944 (1944:26). We have hunted for the species here meanwhile. A new site for the Swainson's Warbler was one mile southeast of Shiloh Park on June 21, where one was found. We have occasionally checked the small creek bottom there for the local Cerulean Warblers, missing these latter then but finding two singers earlier that morning in Shiloh's only good ravine. The Prairie Warbler seemed much below normal in areas where previously found and Killian Roever reports the same in the Jackson area. The Orchard Oriole seemed also low in numbers, considering Shelby County where it is more common than eastward. The Towhee has been found, especially in 1952 and 1953, to be a fairly common summer resident in eastern sections and suburbs of Memphis (RDS, BC, the Chas. Seahorns, Oliver Irwin, Leah Torti, Nelle Moore). It is still local and has been found in certain pockets eastward, being absent from large areas. Reports on all summer Towhees in the Mid-South are solicited. A rare summer species was again listed,—the Lark Sparrow, on July 12, 3 miles west of Clarksburg (Lexington area). One bird was an adult, the other with it may have been an immature.

Early transients returning were 8 Upland Plovers at the Penal Farm on June 21, a lone Pectoral Sandpiper there July 17 and two Spotted Sandpipers on Aug. 1. Mud Lake's edge moved out of the cypresses and on July 25 I counted 17 scattered Solitary Sandpipers and saw a flock of

11 Least Sandpipers. Added on Aug. 2 were 85 Pectorals, a Lesser Yellowlegs, 3 Black Terns (one immature), and on Aug. 8 (Peyton & BC) a Western Sandpiper and a Semipalmated Plover. The small flocks of herons included some Snowy Egrets. Mud Lake was "just right" on Aug. 8 but it went fast and on Aug. 23 there were only two very small shallows of water left, with the last visitors,—80 Pectorals.—BEN B. COFFEY, JR., Memphis, Tenn.

NASHVILLE—It is difficult to recall an exceptionally cool, rainy July in the midst of a severe August-September drought but whatever influence weather may have on the activity of birds those are the two forceful aspects of the past and current seasons.

In general breeding populations are reported as normal except for Dr. Mayfield's impression of a low population at Idlewild Wood. The number of breeding Black-crowned Night Herons on White's Creek Pike was somewhat increased with 35 or more nests in May. The pair of Yellow-crowned Night Herons observed in Buena Vista Marsh in early May were recorded in June and as late as July (DO) but no nest was found. Mr. Ganier found an American Egret in Cumberland Bottoms May 17. There was a Snowy Egret in the South Harpeth Valley April 26. Recently sheared-off feathers of a Great Blue Heron were found, June 26, strewn along Bedford Creek Road and into the farm at Basin Spring in such a way as to indicate the heron had been dragged by a predator (ARL, KAG, Bill Crouch). An artificial "lake" at the head of Bedford Creek might make the area attractive to a Great Blue at this late date.

Locations of 5 pairs of Wood Ducks have been reported for the nesting season. At Buena Vista Marsh and the South Harpeth Valley pairs were seen regularly during the season. Eddie Gleaves and others watched a brood of 7 young ducks and their parents at Craigie Hope; Gene Ruhr saw a black snake take one of a brood of 5 ducklings at Dale Hollow Lake; he also watched a brood in Franklin County.

Nesting records of Warbling and Yellow-throated Vireos are always of interest. Johnnie Ogden watched a family of recently fledged Warbling Vireos being fed in his yard June 5-8; Mr. Ganier saw a Yellow-throated Vireo building May 2.

Larry McLean reports Killdeer nesting on the gravel-topped roof of a one story business building here in Nashville. It is an unusual occurrence and we would like an observation on the same roof next year. Henry Todd reported a similar instance in the MIGRANT 1935, p. 72. Al Mayfield watched Baltimore Orioles feed fledglings on larvae from a wasp nest. The Yellow-billed Cuckoo has seemed an unusually conspicuous species to the writer during the past season both in rural and urban areas.

Breeding birds at Basin Springs were of usual interest. The Sharp-shinned Hawk nested again in the pines there. Green Herons had 4 eggs in a nest in the pines May 16, 4 downy young in the nest May 24; young were last seen near the nest June 22. Two Prothonotary Warbler nests were active May 26; young left one nest June 3. Two pairs of Worm-eating Warblers fed fledged young June 28 and July 4 respectively. A Redstart incubated on a nest in a Sycamore May 30.

H. C. Monk had 2 Dove nests active on Sept. 18 in the Centennial Park area.

It is a regular pattern for gregarious species to flock to summer roosts after nesting duties are completed. Such a roost was active in mid-June in Buena Vista Marsh and had built up noticeably by Sept. 4. Starlings in the main along with a few Grackles and Robins occupied the roosts. Another roost on Charlotte Pike, composed chiefly of Grackles with Starlings, a few Robins and Cowbirds, built up from mid-June to mid-August and later.

The next step in the season and we find migration slowly moving into the Nashville area. H. C. Monk heard the first North-South moving migrants as Upland Plovers flew over at night. He has records of flights on August 1, 2, 5, 6, 7, and later. Unusually early Waxwings were 3 observed by Johnnie Ogden Aug. 18. One was immature. Mrs. Laskey banded a Chestnut-sided Warbler Aug. 21. Mrs. Goodpasture recorded a "wave" of Canada Warblers from Aug 22-Sept. 1 at Basin Spring. With these were a Parula Aug. 22 and a Blackburnian Aug. 23. Next were a Black-throated Green and 4 Northern Water-thrushes Sept. 1 at Radnor Lake (JO, KAG). There was a Nashville Warbler at Buena Vista Sept. 4 (JR, JO, KAG). The first group of warblers seemed to move out on a strong wind and cold front Sept. 4. Since then a few Chestnut-sideds and Black-throated Greens continue to come in. Mrs. Laskey banded an Olive-backed Thrush Sept. 6; Misses Riggs, Castles and Chamberlain had a Bay-breasted Warbler and an unidentified Tern at Radnor Sept. 7. A "wave" of Ovenbird records fell on Sept. 12-13. Four or five were found on Pond Creek Sept. 12 (AFG, RC, JC); one flew into a business house on the same day, was caught and given to Mrs. Laskey for banding and release. Mrs. Bell noted one at home Sept. 13. Additional later records make this a good Ovenbird season. Two other records of interest made by the group at Pond Creek were an adult Wilson's Warbler and a late Yellow Warbler Sept. 12.

A drop in temperature and rain early Sept. 19 broke a drought extending from July 8 and another wave of migrants was in evidence wherever TOS members went Sept. 19-20. One early morning group not only got soaking wet on the 19th but a list of 75 species of birds in the Radnor area. Notables were 4 Wilson's Warblers, a Tennessee, and both Olive-backed and Gray-cheeked Thrushes. Two aditional Wilson's Warblers at Basin Spring make a total of 7 individuals on 3 days in 1 week which is an exceptional if not unique record. This added to an unusual number of Northern Water-thrushes and Ovenbirds converts an otherwise dull warbler season into an especially interesting one.

Conspicuously absent from local records are the shore birds. Dr. Mayfield saw one Spotted Sandpiper on Stone's River Aug. 28 and 30; Gene Ruhr saw one at Dale Hollow. A solitary and an early Wilson's Snipe were at Jackson's Lake Sept. 19 (TOS).

When gaps exist in what we SEE of migration we might fill in with what we HEAR of it, were our ears well enough trained. If the migrating movement is bound by time, it seems to transcend space and weather; for regardless of weather, calls of birds passing overhead can be heard night after night, sometimes almost continuously, sometimes in flock-like groups of calls. Sometimes there is a homogeneous quality of sound, at other times the quality is varied as though coming from mixed species. If you want to be intrigued listen some night.—KATHERINE A. GOODPASTURE, 408 Fairfax Ave., Nashville, Tennessee.

KNOXVILLE—Spring, summer, and early fall have been about average, as far as bird observations around here are concerned. With minor exceptions, described below, migration dates and numbers of birds have been the usual.

On a field trip to the Roaring Springs area, just north of Knoxville, on June 21, the following species unusual to this area were found: Parula, Worm-eating, and Cerulean Warblers, and Scarlet Tanager; no nests or young were found.

J. C. Howell saw a flock of 50 Black Terns on Norris Lake on Sept. 3. A Scarlet Tanager on Sept. 17 at my home (JTT) was apparently an early migrant.

On the night of Sept. 21-22 members of the Knoxville Chapter kept an all-night telescopic watch for migrants silhouetted against the full moon. Over 700 were counted in nine hours, the greatest number being seen between 8 and 11 p.m. when the count averaged 2.6 birds per minute. This large migration was apparently started by a cold front which passed over on the previous afternoon.

A Fall Field Day was held on Sept. 27, and a total of 90 species was recorded. Unusual records were two Sora Rails and three Short-billed Marsh Wrens. Chimney Swifts, Blue Jays, and Mocking Birds were seen in unusually large numbers.—JAMES T. TANNER, Knoxville, Tenn.

GREENEVILLE—On June 20 a male Scarlet Tanager, two male Rose-breasted Grosbeaks, and a singing Veery were located about the wooded edges of Camp Creek Bald. These species, including a second Veery and a Winter Wren in song, were seen on a return visit to the Bald on July 4 (J. B. Smith). Previously the latter two species had not been found; the presence of the four species on these dates suggests their possible nesting.

Nest watching in the lowlands was made more interesting by a Shrike nest with four young (Irvine, Shanks), reported in "The 1953 Spring Field Days" (THE MIGRANT, June, 1953). Presence of a pair of Horned Larks from March 30 through June made a nest of this species likely. Six pairs of Dickcissels occupied parts of Lick Creek Valley visited the first week in June. Two pairs moved into Roaring Fork bottoms July 1, possibly as farming operations disrupted their activities elsewhere. A third male, whose arrival date on Roaring Fork was not learned, sang through June 25, when his clover-seed field was cut. Of possible interest is a singing male Dickcissel seen June 14 along a Jefferson County roadside three miles from the Knox County line. Mr. and Mrs. White found the House Wrens in early June, at the peak of their nesting activities, to be abundant in town. Mrs. White on a two-block walk counted six singing males. Mr. White located about 20 pairs about town. A Red-headed Woodpecker pair at Tusculum lost out twice to the Starlings in competition for a nesting hole (Shanks). Mr. Shanks during a week at Sewanee, on the Cumberland Plateau, noted the greater abundance of Red-headed Woodpeckers there.

Th partial silence of birds during late August and early September was shattered by the noisy young of Goldfinches being fed as family groups visited thistles and weed patches. Late nesting individuals of other species were a pair of Cardinals, as on September 20 the male continued to feed a large offspring. September 2 a young Towhee was appealing to an adult male for food. On August 29 a tractor, idle for a week, had acquired beneath its fan a Carolina Wren nest with two eggs. A farm truck August 26 contained a similar nest without eggs.

A Bewick Wren resumed infrequent song August 23.

An American Egret was seen on Cherokee Lake the last week of August (Shanks). Chimney Swift flocks on late afternoons of September 11 and 12 were large over Greeneville and Tusculum; a cold front occuring then seemed to have brought them in on heavy migration, as following afternoons found only small groups of Swifts (Shanks). Nighthawks in groups of 30 and 35 flocked down Lick Creek valley late afternoons of September 16 and 20. Blue-gray Gnatcatchers were present daily through September 10, one on the 13th, two on the 19th. A Parula Warbler was seen August 13, a Canada Warbler on September 11 (Wilma Irvine) and Magnolia Warbler on September 10. Redstarts have been present daily September 10 through the 20th. A Rose-breasted Grosbeak was seen September 13 and 16. Two Marsh Hawks had arrived September 18. On September 20 a Migrant Shrike reappeared in a roadside location where a Shrike has come to be expected.—MRS. RICHARD NEVIUS, Greeneville, Tenn..

KINGSPORT—Unusually warm weather in the middle of May with continuing periods of unrelieved heat marked the season in Kingsport from our spring field day to our fall count. The heat was accompanied by drought even worse and more prolonged than that of 1952. The rainfall recorded for August was .57 in. compared with a normal of 4.67. I cannot say what effect this weather had on the birds, but it did not inspire much activity among our bird watchers.

Our summer census was conducted during the week of July 12-19 with a low count of 63 species. Warblers were conspicuously missing. The status of two species as residents was in question, Baltimore Orioles and Scarlet Tanagers. Scarlet Tanagers were seen but no Baltimore Orioles, altho their abandoned nests have been found in two localities. A Baltimore Oriole was seen by the McHorrises August 9 and by the author

August 10. In this summer census nesting House Wren were also noted, a total of 24 in two residential areas in the northeast section of Kingsport. As was mentioned in the comment on our spring census, Phoebes and Brown Thrashers continue in plentiful numbers, to which I would add White-eyed Vireos. We have received no reports this season of immature Little Blue Herons which were seen frequently last year.

It seems to me that some species have nested late. I observed a brood of Field Sparrows coming off the nest Sept. 1, and a brood of Goldfinches leaving Sept. 5. Mourning Doves also nested late. In view of this and our failure to note any increase in numbers of Doves around Kingsport, it seems the lengthened Dove hunting season starting Sept. 1 was probably a mistake.

Because there was only one rain during August, we had only one opportunity for further observations of the terns and gulls reported for the first time in this area last summer. Then they appeared at the local private fish hatchery several times the last of August during severe storms. This August fifteen Common Terns appeared briefly during a hard shower, our only rain. With them were some unidentified birds.

The fall migration is so far notable for what has not been seen. Up to the present, Sept. 20, we have no records of the following which ordinarily appear from the first thru the third week of September: Solitary and Least Sandpipers, Semipalmated Plover, Cape May, Blackburnian, and Bay-breasted Warblers, and Rose-breasted Grosbeak. We have only one record of an early arrival, a flock of 12 Blue-winged Teal seen Sept. 5, two days earlier than our previous record. — ANN HARNEY SWITZER, Kingsport, Tenn.

BOOK REVIEWS

A GUIDE TO BIRD FINDING WEST OF THE MISSISSIPPI, By Olin Sewall Pettingill, Jr. 733 p. 1953. Oxford University Press, N. Y. $6.00.

Users of "A Guide to Bird Finding East of the Mississippi", which preceded its brother volume by about two years, will need no introduction, nor recommendation, to this book. Bird watchers used to recognize each other by their binoculars, then by binoculars plus "Peterson", and now they meet at good birding spots directed there by their copies of Pettingill.

This book covers the States west of and including Minnesota, Iowa, Missouri, Arkansas, and Louisiana. It follows the same plan as the earlier volume for the eastern states. There is an introduction describing and explaining the book. Then follows a section on each state, consisting of a general description of the habitats and birds of each within the state, and under locality names alphabetically arranged, detailed directions to the best areas to find birds. A nice feature is that correct pronunciations to names like "Huachuca" are given. There is an index which includes localities and birds, so it would be possible to sit down with this book and plan a trip to see the kinds of birds one wishes.

The book is decorated with attractive line drawings by George Miksch Sutton.

The descriptions introducing each state are worth reading for themselves, for they were written with the help of individuals with wide knowledge of the areas and succeed in giving a brief general picture of the land and the birds.—James T. Tanner.

THE CALIFORNIA CONDOR. By Carl B. Koford. 154 p. 1953. Research Report No. 4, National Audubon Society, 1130 Fifth Ave., New York (28) New York. $3.00.

Koford estimated sixty Condors to be living in an area of California roughly 100 by 100 miles. The conspicuous nature of Condors and their small number combined to make this a unique study in at least one respect: Koford was able to see or obtain information on a large percentage of all the individuals of the species he was studying.

This report is based on the fourth study of rare and vanishing birds supported by the National Audubon Society with the aim of discovering ways of conserving the species. Each study was certain to be valuable, for if the species were to be saved from extinction, success would be complete; if not, a careful study of the species would have been made before the opportunity was lost forever. Another gain is that from such studies conservationists acquire knowledge and experience which can be applied in the preservation of other animals.

The report presents in detail the known history of the California Condor population. Within historical times the species was confined to within a hundred miles of the Pacific coast from the Columbia River to the northern parts of Lower California, living mostly in the mountains of this area. The report suggests no explanation of why Condors could not inhabit other areas of the western mountains. During these times Condors may well have been most abundant when the rough methods of early California ranching produced large numbers of sheep and cattle carcasses. Since then there have been several changes adversely affecting the Condors: reduction in number of sheep and cattle being grazed; more efficient methods of reducing the loss of stock and thus the number of carcasses on the range; replacement of range by grain fields, orchards, and oil fields.

Some key facts are presented in the brief chapter "Population and Survival". Condors are immature for at least five years. With an estimated annual survival rate of between 90% and 95%, about two-thirds of the population would be adults, six years old and older, or about 40 of the estimated total of 60 Condors, a maximum of 20 pairs. Adult Condors nest only every other year and then lay only one egg. On the average, only ten eggs could be laid in one year. No figures on nesting success appear to be available. With this low reproductive potential, the Condor population is in a precarious position; a little change one way or the other could make a big difference. By way of contrast, imagine what could be done with 60 guinea pigs, or even 60 cattle!

Another striking contrast between California Condors and our more familiar birds is the length of time devoted to one brood; beginning with an incubation period of about 42 days, a pair of Condors requires over a whole year from egg-laying to the time the juvenile is independent.

A program for the conservation of Condors is recommended. It includes adequate protection against shooting and against disturbance of nesting and roosting Condors, education, and suggestions for increasing the food supply.

The report contains much detail on the behavior of Condors in flight, when roosting, when feeding, and during the reproductive period. Food habits and food supply are well described. There are many good photos of the birds and their habitat. A person who reads the report can feel as tho he knows something about Condors; Koford, the author, certainly did.—James T. Tanner.

THE LIFE OF THE ROBIN. By David Lack. 240 p. 3rd ed., 1953. Penguin Books, Inc., 3300 Clipper Mill Road, Baltimore (11) Maryland. 65 cents.

The author of this book has written many technical papers about birds, and he has established a reputation among professional ornithologists. Besides being a good ornithologist, he can write well, and this book proves both.

It is about the English Redbreast, which David Lack studied by watching in the field, color-banding to mark individuals, organizing a few experiments, and reading a great deal that had already been written about the "most popular British bird". The book was written for the layman, and tells about all phases of the Robin's life: food, year-round activities, survival, behavior, and so on exhaustively. Despite the non-technical language, many modern aspects of ornithology, such as the significance of a bird's territory, are discussed in detail, and there is a large bibliography at the end of the book.

An American reader may not be especially interested in Robin Redbreast, but he will find much about birds of general interest in this book. It is one of the best studies of a single species, interwoven with up-to-date theory, ever written, and as such has become a minor classic.

The first edition of "The Life of the Robin" was published in 1943, and a revised edition in 1946; this Pelican edition differs from its predecessors in a 21-page "Postscript" describing the work done since the second edition on food, habits, clutch size, nesting growth, and geographical variations.—J. T. T.

NOTES HERE AND THERE

OFFICERS OF T. O. S. CHAPTERS—The following is a list of the elected officers of the eight local chapters of the T. O. S.; most of the elections were held last spring.

MEMPHIS. Pres.—Demett Smith; V. Pres.—Alice Smith; Treas.—Rev. William Hearn; Corresp. Sec.—Nell Coleman; Rec. Sec.—Patricia Moore; Curator—Ben Coffey; State Directors—Edward King and Brother Leo Thomas.

NASHVILLE. Pres.—Mrs. William F. Bell; V. Pres.—Eugene Ruhr; Sec.-Tr.—Ruth Castles.

LEBANON. Pres.—Millard C. Kent; V. Pres.—Mrs. Henry Waters; Sec.—Dixon Merritt.

KNOXVILLE. Pres.—J. B. Owen; V. Pres. Mrs. E. E. Overton; Sec-Treas.—Mrs. R. A. Monroe.

GREENEVILLE. Pres.—Alfred H. Irvine; V. Pres.—J. B. White; Sec.-Treas.—Mrs. Alfred H. Irvine; Statist.—Mrs. Richard Nevius; Director—Mrs. Willis Clemens.

KINGSPORT. Pres.—Ed Gift; Sec.—Mr. W. C. McHorris; Treas.—Mrs. Al Harris; Statist.—Mrs. Robert Switzer.

ELIZABETHTON. Pres.—Dr. L. R. Herndon; V. Pres.—J. C. Browning; Sec.—Mrs. Hugh L. Taylor; Treas.—Mrs. Ruth D. Hughes; Historian—Mrs. F. W. Behrend; Director—Mrs. F. W. Behrend.

BRISTOL. Pres. Mrs. Judith A. Abbott; V. Pres.—C. E. Lovett; Secy.-Treas.— Mrs. Patsy Loving; Statist.—Wilson Lovett.

ERROR IN NAMING STATE OFFICERS—In the June 1953 isue of THE MIGRANT, where (p. 44) officers elected for 1953-54 were listed, the Vice President for East Tennessee, Mrs. E. M. West, was mistakenly called "Mr."

FALL MEETING OF THE KENTUCKY ORNITHOLOGICAL SOCIETY—Oct. 9-11 are the dates on which the Kentucky Ornithological Society is meeting at Cumberland Falls State Park, Corbin, Ky., for its Thirtieth Annual Fall Meeting. Members of the T. O. S. have been invited to join this meeting and celebration especially because the T. O. S. helped found the K. O. S.

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THE ELEVENTH INTERNATIONAL ORNITHOLOGICAL CONGRESS—The 11th International Ornithological Congress will be held in Basel, Switzerland, from May 29th to June 5th, 1954. During the week of the Congress, five days will be devoted to meetings and two to excursions. Before and after the Congress (May 25-28 and June 7-19) excursions will be arranged to enable members to become acquainted with the Swiss avifauna, especially of the Alps. The Congress fee is 30 Swiss francs.

Copies of the prospectus, containing registration form and detailed information, are available from James T. Tanner, Dept. of Zoology, Univ. of Tennessee, Knoxville.

OBSERVATIONS OF HAWK MIGRATION—A cooperative effort to observe fall hawk migration is again being made this fall, the first date being Sept. 20. Any person observing hawk flights this fall should send a summary of his observations to Fred W. Behrend, 607 Range St., Elizabethton, Tenn.

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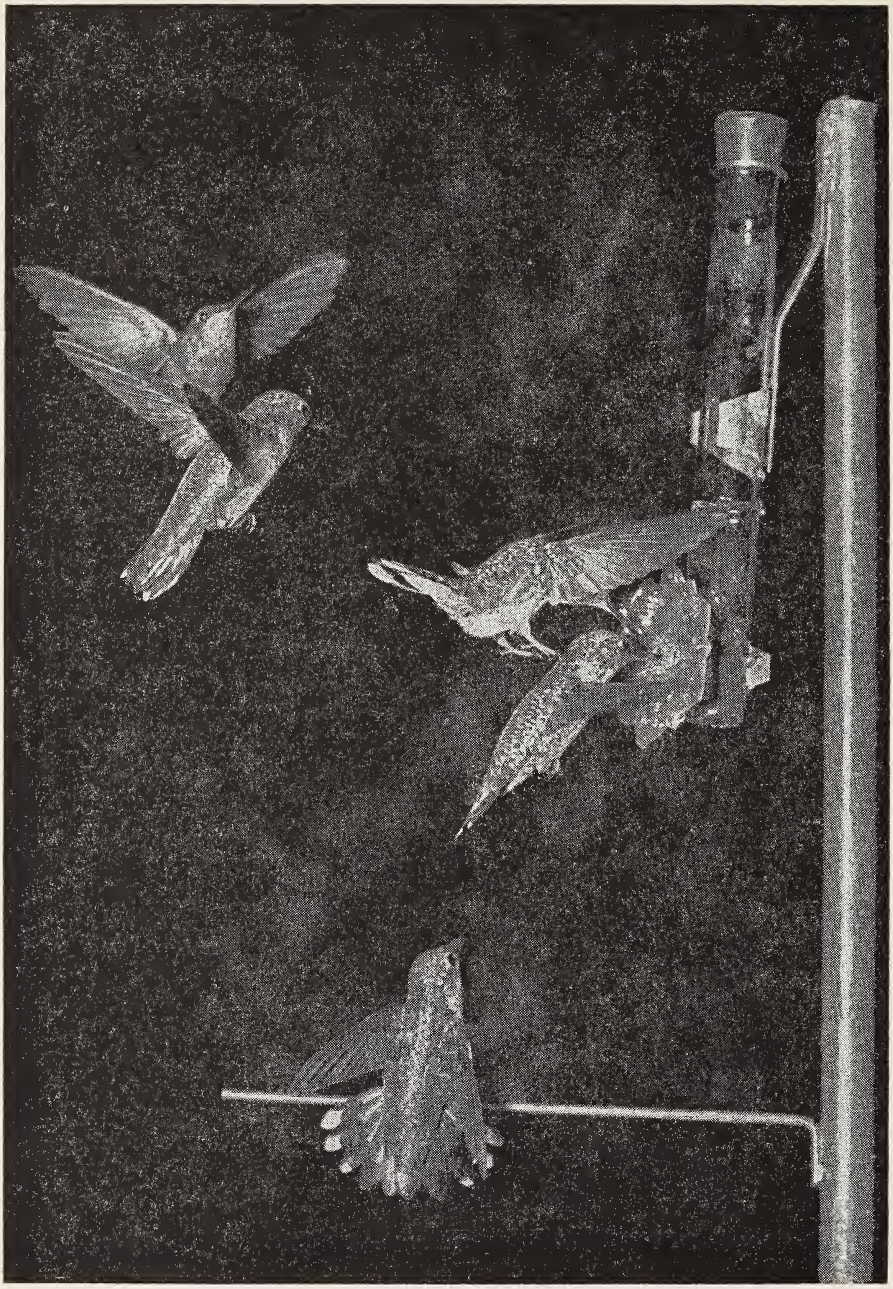

RUBY-THROATED HUMMINGBIRDS

Photo by Charles F. Pickering

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HUMMINGBIRDS

By CHARLES F. PICKERING

For many years I have tried to attract hummingbirds to my back yard, and I finally succeeded this summer. They came about mid-summer, and my conservative figures show I fed them about one and one-half gallons of sweetened water in the proportion of one part sugar to two of water.

The feeders I had purchased earlier in the year each consisted of an ounce test tube with a red artificial flower at its lower portion. These tubes were attached to stakes at about five feet from the ground. The stakes or rods pierced a small can where the joints were soldered. This prevented ants from reaching the sugared water when the cans were filled with water or oil. I also soldered at right angles a wire one-eighth inch in diameter and eight inches long to this post, six inches below the flower. The birds would sit on this perch between drinks.

Honey-bees drank a goodly part of this mixture and were always present and a nuisance, but I could not prevent it.

I had six of these feeders and filled them morning, noon, and night for about a period of ten weeks. Later on in the summer as the number of birds lessened I wasn't quite so busy filling them.

We were sure for the greater part of the season we had twelve or more birds, but it was practically impossible to count them for they were constantly in the air and very antagonistic. They were always fighting. Two or more would meet at a station, go into combat, and fly high into the air with wings and bills clashing. They would fight coming down and clash in the dirt for a few seconds. Even with this constant fighting, there always was a bird every minute or two at the feeders.

We had only one male among the number, the rest were females.

They were fearless of me and of others who watched them. I could stand within six inches of the feeder, even holding a tube in my hand, and they would continue to drink. Standing this close, and when a bird's bill was in the hole, I could catch one with quick movement, and I did this often.

Many visitors came to see the aerial displays, the wonderful flights, and the beauty of their movements.

I made pictures in Kodachrome, both movies and stills, and also in black and white. My first pictures were made at 1/1000 of a second and I got excellent pictures of everything but the wings. I had to shoot 1/5000 of a second to stop their wing beat of fifty-five times a second. All the pictures were made with both light and camera within three feet of the

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feeders. The intense light made no difference as it seemed not to frighten them in the least.

The first exposures were made by remote control, but soon I realized this wasn't necessary, so I stood by the camera and light and tripped the shutter by hand.

This rate of feeding I have mentioned was about the same for most of the day, but it was very noticeable how their rate of feeding increased in the very late afternoon. They lost most of their antagonism, and often at one feeder there would be two birds drinking at the same time from one hole with three or four more hovering close by. The later the day, the more ravenous they would seem to be.

I wondered at this increased tempo and found the answer in the January 1953 issue of "Scientific American". The paragraphs below are from this issue and written by Dr. Oliver P. Pearson, Assistant Curator of Mammals and Assistant Professor of Zoology in the Museum of Comparative Zoology at the University of California.

"Among the warm-blooded animals about the smallest is the hummingbird, some species weighing no more than a dime. As we should expect, the hummingbird has the highest rate of metabolism of any bird or animal. In a resting hummingbird each gram of tissue metabolized fifteen times as fast as a gram of pigeon and more than one hundred times as fast as a gram of elephant.

"The hummingbird wins the honor of living at a rate faster than any other animal at a cost of an enormous food consumption. The bird must devote much of its day to gathering food, mainly nectar and insects. But what happens at night? They are not adapted for night feeding. If this intense metabolism continued undiminished through the night, as it does in other birds, they would be in danger of starving to death before morning.

"For an hour before nightfall, it indulges in intensive feeding. Then the bird settles down for the night, and by the middle of the night the bird is living at a metabolic level only one-fifteenth as rapid as the daytime rate.

"This is the level at which certain mammals hibernate. The bird at night showed many signs of hibernation. It was completely torpid, practically insensible, scarcely able to move, and when it did stir, it moved as though congealed. Its body temperature had dropped to that of the surrounding air. Hibernation, then, is the metabolic magic by which hummingbirds stretch their food store from dusk to dawn.

"Before daybreak the bird's body spontaneously returns to its normal temperature and high metabolic rate. By early morning it is again warm, awake, ready to dart off in search of food."

These birds stayed with me until Oct. 21. Four birds were seen Oct. 15, two on Oct. 19, and one Oct. 21. I left town on this last date for several days, but believe they were not present in my yard later. However my sister-in-law in the other end of the city also had feeders, and her last date of one bird was Oct. 29.

CLARKSVILLE, TENNESSEE.

HAWK MIGRATION — FALL 1953

By FRED W. BEHREND

For the third year members of the T. O. S. collaborated with other ornithological organizations of the Eastern United States in the annual fall count of hawks, an undertaking directed by Chandler S. Robbins of Patuxent Research Refuge, Laurel, Maryland. Members of several chapters of the Society were afield watching for hawks during the peak of migration of Broad-wings from about the middle to the end of September, especially on the weekends of September 19-20 and 26-27. As in prior years, observations were not confined to Tennessee territory, but extended to the mountains of neighboring southwestern Virginia and North Carolina for the reason that some of the ridges in these states lead into Tennessee or close to its borders.

Numerically, results of this year's observation of Broad-wing flights were less satisfying than those of preceeding years. No really large flights were seen on any day. Weather and wind conditions on the weekend of September 19-20 were not particularly favorable. The traditional fall bird census scheduled by most chapters for September 27 naturally detracted from hawk observation activity on the latter date, when wind and weather were ideal for hawk flights. Nevertheless, 896 Broad-winged Hawks were listed during the period of September 13 to 30, and in all probability all but a few of the 209 hawks recorded as unidentifiable buteos were additional Broadwings. Of other species, the following numbers were listed from the late August to beginning of November: Sharp-shinned, 62; Cooper's, 24; Red-tailed, 54; Red-shouldered, 9; Bald Eagle, 2; Marsh Hawk, 54; Sparrow Hawk, 17; Osprey, 6; Pigeon Hawk, 1; Goshawk, 1; Duck Hawk, 3; unidentified Eagle, 1; unidentified accipiters, 19; unidentifiable as to family or subfamily, 27; a respectable total of 1385 predators. There may be some doubt respecting the correctness of the number of Marsh Hawks listed. Previous records do not seem to indicate flights of any size of this species in this territory, and the possibility of mis-identification can therefore not be ruled out.

From all appearances, migration of Broad-winged Hawks over the territory in review progressed rapidly, and without retardation caused by weather, during the 1953 fall season. A long succession of dry, sunny, warm days from August through September was broken by two brief periods of rain within the peak period of migration, on September 19 and 20 and September 25 and 26. It appears they were more local than general, and in each instance were followed by the approach of a cold front. There were a number of days on which the wind, out of the east or southeast was very feeble, but even in the face of this condition the Broadwings were on the go. For most of the migration period with its at times abnormally warm weather, thermal currents may have helped the Broadwings along. Many of these birds thus progressing at great height could have missed being seen. It was interesting to note in certain situations that hawks were not keeping close to the crest of ridges but were taking shortcuts across valleys, probably to connect with the ridge again later on or

COUNTS OF BROAD-WINGED HAWKS DURING FALL MIGRATION 1953

	LOCALITIES																												
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	Total
Sept. 13	1 (p)	6 (p)																											7
17			3 (p)	25 (p)																									28
18				1 (p)																									1
19					30 (p)																								30
20		8 (b)				2 (a)	51 (c)	5 (d)	33 (e)																				99
21										10 (p)	6 (f)																		16
22		1 (h)										176 (p)	14 (g)																191
23							2 (d)							120 (p)															122
24													6 (j)			60 (p)	52 (i)												118
25															3 (k)														3
27																		2 (l)	1 (m)	1 (n)	35 (p)	42 (c)	15 (o)						96
28																								16 (a)	10 (p)				26
29																										2 (m)	82 (p)		84
30																												75 (p)	75
Total	1	15	3	26	30	2	53	5	33	10	6	176	20	120	3	60	52	2	1	1	35	42	15	16	10	2	82	75	896

KEY TO LOCALITIES:

A—Hinds Ridge, 2 miles s.w. of Maynardsville, Union County, Tenn.
B—Clinch Mountain, n.e. of Knoxville, Tenn.
C—Jones Knob, n.e. end of Iron Mountain, southwestern Virginia.
D—Comers Rock, n.e. end of Iron Mountain, southwestern Virginia.
E—Walker Mountain, n.e. of Marion, southwestern Virginia.
F—Bluff Mountain, s.e. end of Bays Mountain, Greene County, Tenn.
G—House Mountain, n.e. of Knoxville, Tenn. (s.w. of end of Clinch Mt.)
H—Copper Ridge, 12 miles n. of Knoxville, Tenn.
I—Raccoon Valley below Bullrun Ridge, 3 miles n. of Clinton Pike, n.w. of Knoxville.
J—High Knob at n.e. end of Powell Mountain, 5 miles s. of Norton, southwestern Virginia.
K—Camp Creek Bald on crest of Appalachian Mts., Greene Co. (Tenn.) and Madison Co. (N.C.)
L—Mendota Tower on Clinch Mountain, n.w. of Bristol, n.e. of Gate City, southwestern Virginuia.
M—Rich Mountain Tower on crest of Appalachian Mts., Greene Co. (Tenn.) and Madison Co. (N.C.)
N—Rich Mountain Tower n.w. of Boone, North Carolina, near Blue Ridge.
O—Blue Ridge Parkway, North Carolina and Virginia.
P—Hump Mountain (Yellow Mts.), Carter Co. (Tenn.), Avery Co. (N.C.)
Q—Indian Gap, western part of Great Smoky Mountains.
R—DeKalb County, 8 miles e. of Smithville, Middle Tennessee.
S—Smallings Bridge, Carter Co. (Tenn.)
T—Roan Mountain, Carter Co. (Tenn.) and Mitchell Co. (N.C.)
U—Max Patch on crest of Appalachian Mts., Cocke Co. (Tenn.) and Madison Co. (N.C.)
V—Beaver Ridge, n. of Knoxville; Ijams Home e. of Knoxville, Tenn.
W—Knoxville and surroundings, including Black Oak Ridge.
X—Clinch Mountain n. of Rogersville, Tenn.
Y—Mt. Cammerer, n.e. end of Great Smoky Mountains.
Z—Blue Ridge at Linville, Avery County, N.C.
AA—Crest of eastern part of Great Smoky Mountains (observation point: Charlie's Bunion).
BB—Crest of western part of Great Smoky Mountains to beyond Clingman's Dome (observation points: Overlook s.w. of Collins Gap and Forney Ridge parking area).

KEY TO OBSERVERS: (a) Mr. and Mrs. Richard Nevius, Greeneville Chapter: (b) Mr. and Mrs. R. A. Monroe, Knoxville Chapter; (c) Dr. J. C. Howell, Knoxville Chapter; (d) J. B Owen, Knoxville Chapter; (e) Mr. and Mrs. R. J. Dunbar, Knoxville Chapter; (f) Mr. and Mrs. Richard Nevius, Mr. and Mrs. C. M Shanks, Mr and Mrs. J. B. White, Greeneville Chapter; (g) Mr. and Mrs. J. B. White, Greeneville Chapter; (h) Dr. J. T. Tanner, Knoxville Chapter; (i) Arthur Stupka and H. W. Lix, Great Smoky Mountains National Park Service, Gatlinburg; (j) J. B. White, Greeneville Chapter; (k) A. F. Ganier, Nashville Chapter; (l) Mrs. W. F. Bell, Mrs. Katherine Goodpasture, Miss Jennie Riggs, Miss Ruth Castles, Nashville Chapter; (m) Mrs. E. Evans and Mrs. R. Bashor, Elizabethton Chapter; (n) Dr. L. R. Herndon, Elizabethton Chapter, (o) Fall bird census participants, Knoxville Chapter (p) F. W. Behrend, Elizabethton Chapter.

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to switch to some other ridge.

Supplementing knowledge acquired in previous years, here are some new and interesting facts concerning the migration of Broad-winged Hawks. As anticipated, and substantiated by observation on Jones Knob and Comers Rock lookout east of the Great Valley in southwestern Virginia, migration of Broad-winged and other hawks occurs along the northeastern end of the Iron Mountains near the New River. This range stretches some 80 miles southwestward past such prominent mountain tops as Mt. Rogers and Whitetop in Virginia and terminates at the Doe River at Hampton, a few miles southeast of Elizabethton, Tennessee. Likewise, as anticipated, and substantiated by observation on High Knob lookout, five miles south of Norton in southwestern Virginia, migration of Broad-winged and other hawks occurs along the northeastern end of Powell Mountain. This range stretches about 60 miles southwestward to near the eastern end of Norris Reservoir between Clinch River and Clinch Mountain on the east and Powell River and the Cumberland Mountains on the west. Another fact of interest that impressed itself more distinctly during the current season than in previous ones is that migration of Broad-winged and other hawks occurs along secondary ridges of lesser height west and east of the Great Valley of Virginia and Tennessee. Observations of this nature include Walker and Little Brushy Mountains in southwestern Virginia, Rich Mountain northwest of Boone, North Carolina, in close proximity to the Blue Ridge, and Spring Creek Mountain south of Hot Springs on the French Broad River in North Carolina. Knoxville Chapter members came up with a batch of observations of Broad-winged Hawks along some of the numerous minor ridges running more or less parallel to each other northeast of Knoxville, more specifically House Mountain. Black Oak Ridge, Beaver Ridge, Copper Ridge and Bullrun Ridge. Admittedly, in neither of these localities was the number of Broad-wings seen large. On the other hand, the time spent on observation in these places was not extensive, nor were weather and wind conditions always "right" during the periods of observation. Of considerable interest is the tracing of appreciable numbers of Broad-wings down the Great Smoky Mountains from their eastern end to as far as the vicinity of Fontana Lake. Equally interesting is the observation of a substantial number of hawks west of the Cumberland Plateau near Sparta in Middle Tennessee. No positive identification of species was made, but description of action of the birds and the total listed at specific intervals made it appear probable that these were flights of Broad-wings. This is the first evidence of hawk flights of some size in the immediate vicinity of the Cumberland Plateau.

Incorporated in this report is a list of Broad-winged Hawks recorded by members who participated in the count. Insufficient space does not permit detailing the variety of other species seen. The effort of those members who looked for but did not see any Broad-winged Hawks, although recording other species, and who are not identified in this report, is hereby recognized. It is hoped that lack of success did not take away from enjoyment of the activity.

Results of counts in other states have been transmitted by Mr. Chandler S. Robbins. They are, listing only Broad-winged Hawks, as follows: New Hampshire, 1380; Massachusetts, 2860; Connecticut, 2150; Pennsylvania (Hawk Mountain Sanctuary), 6655; Maryland, 2986; Alabama, 15; Florida, none, but 94 other hawks; Wisconsin, 1440; Minnesota, 8255; Province of Ontario, Canada, 7991. From another source it is learned that unfavorable wind and weather conditions affected the count in West Virginia on the weekend of September 19-20, resulting in seeing the low number for that state of 547 Broad-wings on the 19th, and a mere 2 in eight locations on the 20th. On September 26th and 27th a total of only 12 Broad-wings were reported from four stations in that State.

It is fitting to recapitulate at this juncture the accomplishments of T. O. S. members in the matter of searching for and finding facts concerning the flyways of hawks over Tennessee and neighboring parts of Virginia and North Carolina. In regard to Broad-wings it may be remembered that aside from a few records of flights in the immediate vicinity of Nashville in 1945 apparently no knowledge existed of migration over Tennessee up to some five years ago. Since then, members of T. O. S. have in a remarkably short time, and from scratch, established the fact that migration of Broad-wings occurs regularly over practically the entire width of that part of the Appalachian Mountain system that embraces East Tennessee and parts of southwestern Virginia and Western North Carolina, from the Cumberlands in the West to the Blue Ridge in the East. On the west side of the Great Valley the line of successful observation extends for 200 miles from near the West Virginia border along principally the Clinch Mountains to the Cumberland Mountains west of Knoxville; on the east side of the Great Valley it extends for 170 miles from near the New River in Virginia to the southwest boundary of the Great Smoky Mountains near Fontana Lake; on the Blue Ridge and nearby transverse ridges it extends for over 100 miles from inside the Virginia border to near Asheville, North Carolina. These are short, but important, links in the long chains of mountains of the Appalachian system along which Broad-winged Hawks migrate each fall from northern breeding grounds probably to the end of these mountains in Georgia and Alabama, and thence over level country and, who knows, perhaps across the Gulf of Mexico to South America, their winter destination. There are many voids to be filled in even these short links of the chains. Members of T. O. S. are in a geographically favorable position to fill some of these voids and advance the knowledge of hawk migration. Hawk migration is doubtless an age-old occurrence, but concerted hawk migration study is still in its infancy, at least in so far as the Southern Appalachian Mountain region and other southern territories are concerned. It has a definite place in the field of bird study and is relatively as important as any other phase of ornithology that has as its aim the acquisition of knowledge of avian life.

607 RANGE ST., ELIZABETHTON, TENN.

INTERESTING BOLIVAR COUNTY, MISSISSIPPI, BIRDS

By MERRITT G. VAIDEN

This paper is the tenth in a series on the birds collected or observed in this county and published in THE MIGRANT, (Sept. 1939; June 1940; Sept. 1940; Sept. 1943; Sept. 1947; Dec. 1948; March 1952; Dec. 1952, and March 1953).

The records and specimens mentioned in this paper are from Bolivar County, Mississippi. All specimens taken are in my private collection. All subspecific identifications were made from specimens.

"And the rains came pouring—". Beginning the night of April 23, and on through the night of May 18, this area had 14.86 inches of rain. On the nights of May 10 to May 19, inclusive, we had 6.01 in. of rain. There were nine consecutive nights of thunder, lightning, and rain. During this period an odd observation was that the barometer failed to go below 29:92 at 147 feet above sea level and usually was at 30:00 or above. The birds piled up on us as the rains poured down on us. On May 10, seven hours were used in the field and along the highways where seventy-three species were counted; eleven of these were extremely rare or rare at this locality. Rains usually falling from early evening to midnight accompanied by lightning and thunder bring the migrating birds down to earth and thereby we have great concentrations following such cyclonic conditions.

BLACK-CROWNED NIGHT HERON **(Nycticorax nycticorax hoactli).** A colony of approximately fifteen birds was located in a heronry composed of several species. There is no available record to show that this is not the first nesting record in the State. A bird was secured on May 23, 1953, a female. There are only five published records of the bird being collected in the State.

GREATER YELLOW-LEGS **(Totanus melanoleucus).** For the first season in thirty-four years more than five birds of this species were located in one day. Beginning with April 12 to 23, inclusive, we counted from five to twenty birds feeding along the levee in the shallow borrow-pits. This wave was much greater than the April-May wave of 1940. Normally this bird is not often observed in spring and when seen usually one or two are the total listed; we have only two records for the late summer and fall season.

BLACK-BILLED CUCKOO **(Coccyzus erythophthalmus).** These birds were first observed on May 13 and remained here until June 4, 1953. Groups of three to fifteen of these birds were found feeding in alfalfa, oats, wheat, and grain fields.

OLIVE-SIDED FLYCATCHER **(Nuttallornis borealis).** Two of these birds were located during a pouring rain with much lightning and thunder on May 11, 1953. One, a male, was taken. This is my fifth record of observation in Bolivar County.

NASHVILLE WARBLER **(Vermivora r. ruficapilla).** A great wave of these birds came in to Legion Lake area on April 25, 1953, following a severe rainstorm with an excessive amount of lightning and thunder.

Nineteen birds were counted on a one-half mile walk along the lake shore on April 28. This wave of Nashville Warblers was greater than the wave of April-May, 1940, and about equal to the wave of May, 1923. Unusual for this bird here, we found them feeding near the ground in buttonbushes and swamp privet as though they had just arrived.

WILSON'S PILEOLATED WARBLER (**Wilsonia p. pusilla**). These birds arrived in great numbers following the rain during the night of May 4. On May 6, 1953, thirteen birds were listed on a one-half hour walk along the lake shore. Bobby Collins listed twenty-three in two hours on May 5, 1953. at Legion Lake.

BOBOLINK (**Dolichonyx oryzivorus**). Following the downpour of May 3 and 4 we had several flocks of the Bobolink in alfalfa and vetch fields. All birds, over 250, were males. I have not to this date ever found a female here in spring except on one occasion when on May 9, 1940, a large flock of females was located, and several specimens secured, two miles north of Gunnison, Mississippi.

BLUE GROSBEAK (**Guiraca caerulea**). On May 5, 1953, a male was secured and on May 13, 1953, a female was collected for my second and third collections in the Yazoo Basin.

NORTHERN PINE SISKIN (**Spinus p. pinus**). Mrs. W. W. Collins first located this species feeding in her yard on the fruit of Red Mulberry on May 7, 1953, the flock numbering probably fifteen birds. Bobby Collins and I made a search immediately of the mulberry trees in the town and found numerous flocks feeding in the same manner with many other birds including Rose-breasted Grosbeaks, Scarlet Tanagers, and White-crowned Sparrows. The Siskins remained until night of May 12. On May 13 not a bird was to be found.

ARCTIC SPOTTED TOWHEE (**Pipilo maculatus arcticus**). On March 16, 1953, at 4 p.m. this bird, a female, was located feeding within fifteen feet of the residence. Children on bicycles caused the bird to fly and the chase lasted an hour before again finding it in another yard where it was collected. The skull proved this bird to be somewhat immature; gonads were undeveloped and the weight was 635 grains. I find no record available showing this bird to have been taken in Mississippi prior to this record. Identification to subspecies was made by Dr. Alexander Wetmore.

LARK SPARROW (**Chondestes grammacus**). Two birds were collected this spring. A male was secured on April 7, at Larry Wilson Lake, two miles north; and another, a female, near Lake Beulah was shot on April 22, 1953. I find these two collections the first north of the Gulf Coast Counties and the fourth and fifth collection ever to have been made in this State.

HARRIS'S SPARROW (**Zonotrichia querula**). Following much thunder, lightning, and a small shower, Bobby Collins located five of these birds feeding with English and White-throated Sparrows on a closely clipped front lawn of a residence. A bird flew to the edge of the pavement of the street where I collected a male that was not in full spring plumage; on the next day one only was seen in the approximately same location and was secured. It was also a male in not fully matured plumage. Both birds were quite fat. The birds were secured on April 18 and 19, 1953. These collections proved to be the second and third for Mississippi, and the first collections north of the Gulf Coast Counties.

ROSEDALE, MISS.
August 9, 1953.

THE 1953 CHRISTMAS SEASON BIRD COUNTS

By T. O. S. MEMBERS

Two new localities are included in this season's Christmas Counts, Chattanooga and Big Bald Mountain, making a total of thirteen reports which are summarized here. The grand total of species reported is 115, within one of the all-time record. Five species appear on the list for the first time: Rough-legged Hawk, Sprague's Pipit, Western Meadowlark, Smith's Longspur,—all from Memphis, and Snow Bunting from Big Bald Mountain. Two appear for the second time, Least Sandpiper and Ring-necked Pheasant, both seen at Nashville.

When looking over the tabulated counts, one is challenged by the possibility of making comparisons between different localities and between different years. The relative abundance of two pairs of species interested the editor, who compiled the reports. First, the relative numbers of Turkey and Black Vultures; a check of the numbers of these two species reported in the Counts of the last five years shows that the ratio of Turkey to Black Vultures has decreased during this time, considering the State as a whole, and that the number of localities reporting more Turkey than Black Vultures has also decreased; this year the ratio of Turkeys to Blacks is 16 to 120, while in most past years the numbers have been about equal or Turkey Vultures have been more common. Secondly, the number of White-crowned Sparrows has shown a gradual increase in the past five years, when the total number is considered. when the ratio of White-crowned to White-throated sparrows is considered, and when the percentage of localities reporting White-crowned Sparrows is considered.

In the table and descriptions that follow, the localities are listed from west to east. Under the heading "Information on the Counts" are described the areas, types of habitats covered, weather conditions, number of observers or parties, miles covered, number of species, and approximate number of individual birds observed, and the names of the observers. The species and numbers of individuals observed at each locality are listed in the table except for the reports from Roan Mountain and Big Bald Mountain which are entirely included in paragraph form to enable including the altitudinal information. For additional information on records marked with an asterisk (*), see the paragraph containing the information on the locality.

TABULAR RECORD OF 1953 CHRISTMAS COUNTS

	MEMPHIS	REELFOOT	JACKSON	DUCK RIVER	NASHVILLE	LEBANON	CHATTANOOGA	GREAT SMOKIES	GREENEVILLE	KINGSPORT	ELIZABETHTON
Horned Grebe	—	—	—	—	—	—	—	—	—	—	1
Pied-billed Grebe	4	18	2	—	1	—	—	—	—	1	23
Double-crested Cormorant	—	63	—	*	—	—	—	—	—	—	—
Great Blue Heron	6	29	—	150	4	1	—	1	1	—	—
Canada Goose	—	*	—	*	—	—	—	22	—	—	—
Snow Goose	—	—	—	1	—	—	—	—	—	—	—
Mallard	58	*	—	*	24	—	—	—	—	5	108
Black Duck	—	100	—	275	124	—	—	—	25	2	—
Gadwall	—	115	—	22	5	—	—	—	—	—	—
Pintail	—	108	—	38	—	—	—	—	—	—	—
Green-winged Teal	—	12	—	—	—	—	—	—	—	—	13
Blue-winged Teal	—	7	—	—	—	—	—	—	—	2	—
Baldpate	4	—	—	25	—	—	—	—	—	—	—
Shoveller	—	2	—	—	—	—	—	—	—	—	—
Wood Duck	1	—	—	7	—	—	—	—	—	—	—
Ring-necked Duck	15	69	—	14	9	—	—	—	—	1	—
Canvas-back	2	36	—	—	4	—	—	—	—	—	—
Lesser Scaup Duck	267	5	—	300	6	—	9	—	—	8	—
American Golden-eye	—	11	—	—	—	—	—	—	—	—	—
Bufflehead	—	—	—	2	—	—	—	—	—	—	11
Ruddy Duck	—	1	—	—	—	—	—	—	—	—	—
Hooded Merganser	—	9	—	26	—	—	—	—	—	—	—
American Merganser	—	3	—	—	—	—	—	—	—	—	3
Turkey Vulture	6	—	5	—	1	—	—	1	—	3	—
Black Vulture	5	43	8	—	54	5	—	—	—	5	—
Sharp-shinned Hawk	—	1	1	—	—	—	—	1	—	—	1
Cooper's Hawk	4	—	3	1	3	—	—	1	2	1	1
Red-tailed Hawk	24	14	1	12	9	1	3	2	2	—	1
Red-shouldered Hawk	8	16	4	5	10	—	—	—	*1	—	—
Rough-legged Hawk	*1	—	—	—	—	—	—	—	—	—	—
Bald Eagle	—	9	—	*12	—	—	—	1	—	—	—
Golden Eagle	—	—	—	*7	—	—	—	—	—	—	—
Marsh Hawk	3	4	4	8	6	—	—	—	—	—	—
Duck Hawk	—	1	—	—	—	—	—	—	—	—	—
Sparrow Hawk	23	12	6	3	30	5	6	3	13	—	5
Ruffed Grouse	—	—	—	—	—	—	—	9	—	—	—
Bob-white	8	2	2	—	24	—	8	22	26	—	—
Ring-necked Pheasant	—	—	—	—	1	—	—	—	—	—	—
Coot	—	1	—	5	1	—	—	—	—	—	—

Kildeer	98	4	6	15	49	10	8	32	26	13	5
American Woodcock	—	—	*1	—	—	—	—	—	—	—	—
Wilson's Snipe	29	1	10	—	5	—	—	—	—	—	—
Least Sandpiper	—	—	—	—	1	—	—	—	—	—	—
Herring Gull	2	26	—	—	—	—	—	—	—	—	—
Ring-billed Gull	14	325	—	95	2	—	—	—	—	—	—
Mourning Dove	44	22	10	85	129	8	512	80	216	2	8
Screech Owl	1	—	1	—	1	2	—	—	4	1	1
Horned Owl	—	1	—	1	1	4	—	1	—	—	—
Barred Owl	4	3	—	—	—	—	—	—	—	—	—
Short-eared Owl	*9	—	—	1	1	—	—	—	—	—	—
Belted Kingfisher	6	4	1	2	8	—	1	5	3	3	4
Flicker	147	24	45	3	115	13	39	4	11	4	11
Pileated Woodpecker	3	5	2	1	20	2	3	15	6	1	4
Red-bellied Woodpecker	72	45	51	10	37	11	9	1	9	1	1
Red-headed Woodpecker	18	—	3	1	5	—	2	—	2	—	—
Yellow-bellied Sapsucker	29	15	16	4	14	7	2	4	2	1	—
Hairy Woodpecker	9	3	7	—	16	1	2	2	4	4	—
Downy Woodpecker	62	21	17	12	87	12	16	23	21	7	18
Phoebe	2	—	—	3	2	—	—	15	1	4	3
Horned Lark	158	—	320	—	70	6	50	7	75	—	—
Blue Jay	474	21	135	17	123	20	86	34	88	55	62
Raven	—	—	—	—	—	—	—	6	—	—	—
American Crow	73	*	40	216	251	300	29	187	885	65	270
Black-capped Chickadee	—	—	—	—	—	—	—	*	—	—	—
Carolina Chickadee	237	158	49	32	170	1	47	*	111	47	97
Tufted Titmouse	131	97	33	15	97	6	56	35	88	27	47
White-breasted Nuthatch	6	6	3	1	2	1	23	1	5	—	—
Red-breasted Nuthatch	—	—	—	—	*1	—	—	55	—	—	—
Brown Creeper	9	7	5	—	12	1	1	19	2	—	3
Winter Wren	22	10	27	—	9	1	—	5	3	2	—
Bewick's Wren	1	—	2	—	14	5	1	3	3	—	—
Carolina Wren	126	53	15	6	63	4	15	27	60	19	40
Mockingbird	140	18	37	9	127	26	28	18	59	27	27
Catbird	—	—	*1	—	—	—	—	—	—	—	—
Brown Thrasher	28	2	14	—	1	—	4	—	—	*1	—
Robin	145	54	116	50	*	2	1	300	15	5	32
Hermit Thrush	26	1	8	—	4	—	1	11	—	—	3
Bluebird	58	4	36	18	158	23	18	49	37	13	45
Golden-crowned Kinglet	67	28	23	1	7	—	5	87	1	3	35
Ruby-crowned Kinglet	20	3	9	—	1	—	1	9	—	—	—
American Pipit	26	—	32	—	40	—	—	7	—	—	—
Sprague's Pipit	*5	—	—	—	—	—	—	—	—	—	—
Cedar Waxwing	180	—	45	—	62	6	50	1	5	12	1
Loggerhead Shrike	30	10	9	1	15	1	3	4	3	—	6
Starling	*	*	8	400	*	*	318	20	129	350	702
Myrtle Warbler	102	7	28	2	57	1	7	20	23	7	30
Pine Warbler	*1	—	—	—	—	—	6	—	—	—	—

House Sparrow	359	270	230	42	280	100	17	130	155	79	115
Eastern Meadowlark	222	6	215	83	76	9	149	45	171	6	54
Western Meadowlark	*1	—	—	—	—	—	—	—	—	—	—
Red-winged Blackbird	*	*	11	*	11	—	—	—	1	—	—
Rusty Blackbird	—	5	22	1	12	—	—	—	—	—	—
Purple Grackle	*	*	4	75	*	2	—	2	2	5	1
Cowbird	*	35	4	49	2	3	—	—	—	—	—
Cardinal	617	358	97	60	566	65	105	70	166	50	90
Purple Finch	37	—	6	—	6	12	3	55	13	—	14
Pine Siskin	—	—	—	—	—	—	—	133	—	—	2
Goldfinch	171	27	44	204	272	—	24	330	99	86	272
Red Crossbill	—	—	—	—	—	—	—	90	—	—	—
Red-eyed Towhee	90	1	104	6	73	8	46	16	26	27	19
Savannah Sparrow	14	—	9	2	4	—	—	6	—	—	1
Vesper Sparrow	—	—	2	—	—	—	—	*1	*2	—	—
Slate-colored Junco	779	79	157	46	584	50	133	287	152	75	174
Tree Sparrow	—	—	—	—	3	—	—	—	*5	—	—
Chipping Sparrow	—	—	*1	—	—	—	—	—	—	—	1
Field Sparrow	303	36	20	18	147	24	46	180	65	60	70
Harris's Sparrow	7	—	—	—	*1	—	—	—	—	—	—
White-crowned Sparrow	28	40	16	1	141	3	2	*7	53	7	36
White-throated Sparrow	*	84	161	45	300	—	173	84	58	58	51
Fox Sparrow	71	81	11	2	4	1	2	—	—	—	1
Swamp Sparrow	66	167	10	90	110	—	2	1	—	1	3
Song Sparrow	472	153	24	100	238	2	55	69	69	31	51
Lapland Longspur	250	—	14	—	—	—	—	—	—	—	—
Smith's Longspur	*37	—	—	—	—	—	—	—	—	—	—
TOTAL SPECIES	79	76	67	65	78	43	48	62	52	46	51

INFORMATION ON THE COUNTS

MEMPHIS, TENN.—(1952 area slightly extended; wooded bottomlands 25%, deciduous woodlots including city parks 25%, old cottonfields, pastures, airports, and farms 25%, suburban roadsides 20%, island willow thicket and river edge 5%). Dec. 27, 1953; 6:50 a.m. to 5 p.m. Cloudy; temp. 34 to 52; wind west, 10-25 m.p.h. 30 observers in 8 parties. Total party-hours 99 (81 on foot, 18 by car), total party-miles, 223 (73 on foot, 150 by car). Total, 79 species, about 307,654 individuals. Mr. and Mrs. Ben B. Coffey Jr. (compiler), Mr and Mrs. Frederick T. Carney, Mrs. Irene Daniel, Mary Davant, Genevieve Geren, Richmond Gill Jr., Luther F. Keeton, Lawrence C. Kent, Reed Knight, Charles A. Koepke III, Harry Landis Jr., Charles A. Marcus, Jennie May, Mrs. J. H. McWhorter, Nelle Moore, George Peyton Jr., Edwin Poole, Alice Smith, R. Demett Smith Jr., Mrs. Noreen Smith, Mrs. Ellen Stringer, Mrs. Leah Torti, Dr. Wendell Whittemore, David and Donald Wilson, Edward and Mrs. Rose N. Woolridge, Orval M. Wood III.

The estimated number of blackbirds using the roost was 300,000, based on the size of the area used and the apparent density. The estimates of different species, based on proportion of each in incoming lines, were: Starling, 70,000; Red-winged Blackbird, 60,000; Grackle, 160,000; Cowbird, 10,000. The roost was not checked for Rusty Blackbirds as in 1952. Western Meadowlark, Sprague's Pipit, and Smith's Longspur, identified by Mrs. Coffey and others, were wintering, and appear for the first time on a Tennessee Christmas Count, as does the Rough-legged Hawk identified by Demett Smith, George Peyton, and Richmond Gill. A male Pine Warbler was seen by Richmond Gill at a distance of 15 feet. The Short-eared Owls were present at the blackbird roost. The number of White-throated Sparrows reported was 1085.

REELFOOT LAKE, TENN., including Reelfoot Lake National Wildlife Refuge—(Essentially same area as in the past, with less coverage of the frozen lake and more along the Mississippi River; wooded bottoms 25%, wooded hillsides 20%, roadside 25%, open fields and farms 20%, lake and river 10%). Dec. 27, 1953; 6:30 a.m. to 5:30 p.m. Overcast; temp. 37 to 48; wind variable, 12 to 15 m.p.h. Lake frozen except for a few holes, water level lowest since 1930. 7 observers in 3 parties. 76 species, about 633,098 individuals. Howard and Evelyn Barbig (compiler), Thomas Walker Jr., Eugene Cypert, Preston Lane, Charles McPherson, Victor Julia.

Reelfoot Lake was completely frozen except for a few open holes, which is unusual for this time of year. The ice was too thick to use a boat and two thin for safe walking, therefore limiting activities on the lake. According to Mr. Preston Lane, refuge manager, Reelfoot Lake froze over on the night of Dec. 22, and during that day about 60,000 ducks and 2800 Canada Geese left the refuge. On the day of the count, an estimated 50,000 ducks were seen in a mass flight, coming from the direction of the Mississippi River and dropping from sight apparently at the upper end of the lake within the refuge.

The remarkable blackbird flight of past years showed a decrease from about 2 million to 540,000 Red-winged Blackbirds, 28,000 Grackles, and 8000 Starlings. Estimated number of other species were: Canada Goose, 1100; Mallard, 1000; Crow, 1988.

JACKSON, TENN.—(Same area as in 1952; river bottom 50%, open fields 25%, roadside thickets 10%, ponds 10%, upland woods 5%). Dec. 27, 1953; 6 a.m. to 5 p.m. Overcast the entire day; temp. 34 to 50; wind SE, 5 to 15 m.p.h. Two observers in one party. Total party-hours 11 (9 on foot, 2 by car), total party-miles, 50 (10 on foot, 40 by car). 67 species, 2413 individuals. Killian Roever (compiler), Mrs. W. E. Roever. The Woodcock is a regular winter resident in favorable areas here. The Catbird has been present since last October. The eye-stripe and rusty cap of the Chipping Sparrow were clearly seen.

DUCK RIVER, JOHNSONVILLE, TENN.—(Same area as in 1952, which includes the Tennessee National Wildlife Refuge at the confluence of Duck and Tennessee rivers).—Jan. 3, 1954; 8 a.m. to 5 p.m. Weather fair; temp. 22 to start, rising to 52. Wind S-SE, 7-16 m.p.h.; ground bare, ponds, sloughs and swamps not frozen. 13 observers in 3 parties. Total party-hours 20 (15 on foot, 5 in cars); total party-miles, 30 (5 on foot, 25 by car).—65 species; about 110,038 individuals.—Ruth Castles, James L. Dole, Albert F. Ganier (compiler), Al Mayfield, G. R. Mayfield, Johnny Ogden, Douglas Oxford, Jennie Riggs, Ed and Dan Schreiber, Eugene Cypert, Mrs. Cypert and James Tucker.—At dusk, many flocks of Canada Geese winged their way from distant feeding grounds into the refuge, joining others there to roost in the flooded sloughs. Most of the Redwings listed were also coming in to roost. The Gulls were at the Johnsonville power house. None of the herons were observed in the heronry as yet. For notes on the eagles, see article in Round Table section. The group was indebted to Mr. Cypert, U. S. Fish and Wildlife Service Biologist, for making efficient arrangement.

The numbers of the more abundant species were: Double-crested Cormorant, 3000; Canada Goose, 2300; Mallard, 2000; Red-winged Blackbird, 100,000.

NASHVILLE, TENN.—(Same localities and terrain as last 3 years). Dec. 27, 1953; 6:30 a.m. to 5 p.m. Clear in a.m., overcast in p.m.; visibility good; temperature 21 degrees at start, rising to 50; wind S-SE, 5-13 m.p.h. Ground bare and frozen in a.m., no water except in creeks. 34 observers in 10 parties. Total party-hours 90 (67 on foot, 23 by car), total party-miles 154 (34 on foot, 120 by car). 78 species, about 211,364 individuals (4,933 omitting Starlings, Robins and Grackles).—B. H. Abernathy, Dr. and Mrs. Arthur A. Allen (N.Y.), J. H. and Mrs Bailey, Mrs. Wm. Bell, Mrs. Leon DeBrohun, Henry Binkley, Mrs. K. B. Etherly, Charles Ferrell, Albert F. Ganier (compiler), Eddie Gleaves, Mrs. Katherine A. Goodpasture, Frances and Alice Hager, Wayland A. Hayes, Helen Howell, J. P. Jones, Mrs. R. E. Lynn, Al. Mayfield, G. R. and Mrs. Mayfield, Larry McClain, Edgar P. and Mrs. Mountfort, Johnny Ogden, Douglas Oxford, Wm. Parker, H. E. Parmer, Jenny Riggs, James Robins, Ed and Dan Schreiber, Mrs. Phoebe Travis, James Tucker and Ruth White.

The water birds were seen on Cumberland River, Radnor Lake (85 acres), and Jackson Lake (5 acres). The Red-breasted Nuthatch was reported by McLain and the Harris's Sparrow by Mrs. Goodpasture who observed it carefully; it (the second Nashville record) was in a roadside fencerow, with a flock of 21 White-crowns. For the following birds, the estimates are of those entering a big roost in the suburbs, on Golf Club Lane, and are presumed to include all of these species listed during the day: Robin, 4000; Starling, 200,000; Grackle, 2400. This is the 40th consecutive count for Nashville.

LEBANON, TENN.—Dec. 27, 1953. Partly cloudy, temperature about 35, wind from south. Dixon Merritt, compiler. 43 species, about 2265 individuals. The number of Starlings reported was 1500.

CHATTANOOGA, TENN.—Dec. 20, 1953. Overcast to cloudy, sleet starting about 3 p.m., temp. 28 to 45. 17 observers in 10 or fewer parties. 48 species, 2127 individuals. Mr. and Mrs. James R. Barnwell, Richard and James Barnwell, Mr. and Mrs. T. Stanley Barr, Mrs. J. D. Birchfield, Dr. Wilbur K. Butts, Miss Gladys Conner, Mrs. Leon F. Cross, Mrs. June S. Hall, Mrs. Frank A. Walsh, Mr. and Mrs. Jack R. Wilkinson, Mr. and Mrs. Eugene M. West (compiler)

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N. C.—(Same as 1937 and subsequent years).—Jan. 3, 1954, 6:30 a.m. to 6:00 p.m.

Clear to partly cloudy; temp. 25 degrees to 55 degrees; wind variable, up to 25 m.p.h. at higher altitudes, lessening in p.m.; ground bare except for lingering snow patches at high altitudes. Thirty observers in 12 parties. Total party-hours, 90 (80 on foot, 10 by car); total party-miles 149 (97 on foot, 52 by car). 62 species; about 2,904 individuals. Mary Ruth Chiles, William Cole, Hugh Davis Jr., Margaret Dickson, Larry Doyle, Robert J. Dunbar, Mary Enloe, Keeton Griffin, Joseph C. Howell, Don Hurley, John Jacobs, E. S. Janson, Richard Laurence, Mr. and Mrs. Frank Leonhard, James E. Liles, Richard Lorenz, Mr. and Mrs. R. A. Monroe, Julia I. Moore, Kenneth Newton, Mrs. E. E. Overton, Paul Pardue, Robert Scott III, William F. Searle, Mr. and Mrs. Arthur Stupka, Maryann Stupka, James T. Tanner, Samuel R. Tipton, Lois Tucker (Tennessee Ornithological Society, National Park Service, and guests).

The total number of chickadees, both Black-capped and Carolina Chickadees, was 248. The Vesper Sparrow was reported by Chiles and Leonhard, the White-crowned Sparrows by Howell and Tipton. The total number of species, 62, was a record for a Christmas Count in this area.

GREENEVILLE, TENN. (Same area as in previous years).—Dec. 28, 1953; 7:00 a.m. to 4:30 p.m. Cloudy, light rain beginning at noon; temp. 38 to 40 degrees; wind N 0-5 m.p.h. Eleven observers in 5 parties. Total party hours 30; total party-miles 125 (20 on foot, 105 by car). 52 species, 3004 individuals. Mrs. Willis Clemenes, Mrs. Chester Darnell, Dr. Lee R. Herndon, Robert Herndon, Mr. and Mrs. Alfred Irvine, Mr. and Mrs. Richard Nevius (compilers), Mr. and Mrs. J. B. White, Robert K. White.

The Vesper Sparrows were identified by Mr. Clemens and Mr. White. The Tree Sparrows were found by Richard Nevius, and studied for half an hour at distances of 25 to 50 feet so that several plumage characteristics were noted; they were in a grassy meadow containing several blackberry and wild rose clumps, near Lick Creek, with a flock of about 50 Juncos. The Red-shouldered Hawk was reported by Alfred Irvine.

KINGSPORT, TENN. (Same area as in previous years).—Dec. 27, 1953; 7:30 a.m. to 5:30 p.m. Clear, temp. 20 to 45. 7 observers in 6 parties. Total number of party-hours 19, total party-miles 15. 46 species, about 1069 individuals. Mrs. Robert M. Switzer, compiler. The Brown Thrasher has remained at the home of Mrs. Switzer thru the fall and early winter; the latest date on other Thrashers was Oct. 14.

ELIZABETHTON, TENN. (Same area as in previous years).—Jan. 2, 1954; 7 a.m. to 6 p.m. Clear, temp. 22 to 48, no wind. 17 observers in 7 parties. Total party-hours 53 (36 on foot, 13 by car, 4 by boat), total party-miles 186 (34 on foot, 127 by car, 25 by boat). 51 species, 2577 individuals. Mrs. R. Bashor, D. Bashor, Mrs. F. W. Behrend, Mr. and Mrs. J, C, Browning, Mary Cook, David Fortune, Mr. (compiler) and Mrs. L. R. Herndon, Mrs. Ruth Hughes, D. Hughes, Malcolm Jones, Mr. and Mrs. J. B. Luker, Mr. and Mrs. R. May, Mrs. Hugh L. Taylor.

ROAN MOUNTAIN, CARTER-MITCHELL COUNTIES, TENN.-N. C.—From crossing of old and new roads (3750') via old road to Carvers Gap (5512'), thence west-southwest to Roan High Bluff (6285') and east to

Grassy Bald (6189'), respectively, route of descent from Carvers Gap same as on ascent; deciduous woodland 45%, spruce and fir mixed with rhododendron 35%, grassy area to some extent covered with alder bushes 20%.—Dec. 26, 1953; 7 a.m. to 5:25 p.m. Clear, temporary light cloudiness in afternoon, excellent visibility; temp. 19-30; wind NE-NW 8-30 m.p.h.; ground frozen, scattered remnants of snow. Total hours, 10½; total miles, 14 (on foot). Coopers Hawk, 1 (5500'); Red-tailed Hawk, 1 (5900'); Ruffed Grouse, 2 (3800', 5500'); Hairy Woodpecker, 1 (4650'); Downy Woodpecker, 2 (4400'); Common Raven, 2 (6300'); Am. Crow, 184 (5800-6000'); Chickadee (sp.), 2 (4950'); Tufted Titmouse, 7 (4000-4300'); Red-breasted Nuthatch, 7 (5500-5600'); Cardinal, 3 (4000'); Pine Siskin, 32 (5550-6150'); Am. Goldfinch, 1 (4100); Eastern Towhee, 1 (4000'); Slate-colored Junco, 40 (3900-6100'); Field Sparrow, 3 (4250'); Song Sparrow, 1 (3750'); TOTAL, 17 species, 290 individuals.—Fred W. Behrend (Elizabethton Chapter T.O.S.).

BIG BALD MOUNTAIN, UNICOI-YANCEY COUNTIES, TENN.-N. C. —From east fork of Higgins Creek (3400') to Appalachian Trail (5000') and summit of Big Bald (5516'), wooded slopes of latter; deciduous woodland (3400-5300') 70% grassy treeless area (5300-5516') 30%. Jan. 1, 1954; 8 a.m. to 5 p.m. Clear, cloudless sky, excellent visibility; temp. 25-35; wind NW-W 1-15 m.p.h.; ground frozen, scattered remnants of snow Total hours, 9; total miles, 9 (on foot). Cooper's Hawk, 1 (5250'); Ruffed Grouse, 1 (5100'); Pileated Woodpecker, 1 (3900'); Hairy Woodpecker, 3 (5000-5200'); Downy Woodpecker, 3 (5100-5200'); Blue Jay, 1 (5200'); Chickadee (sp.) 8 (3400-5000'); Tufted Titmouse, 27 (4100-5300'); White-breasted Nuthatch, 7 (4100-5300'); Cardinal, 3 (one pair at 3475', one male at 5200'); Eastern Towhee, 2 (5250'); Slate-colored Junco, 10 (4200-5300'); Song Sparrow, 1 (3500'); Snow Bunting, 1 (5500'). TOTAL, 14 species, 69 individuals.—NOTE: One Snow Bunting seen in same locality on November 29, 1953.—Fred W. Behrend, (Elizabethton Chapter T.O.S.).

THE ROUND TABLE

EAGLES AT THE DUCK RIVER REFUGE.—The concentration of eagles during the winter in the Tennessee National Wildlife Refuge, at the confluence of the Duck and Tennessee rivers, affords perhaps the best place in the country to observe Golden and Bald eagles together in numbers.

Here, in the 48,000-acre river bottom refuge, mostly wooded and waste land, swamps, sloughs, ponds and lake, thousands of wild geese, ducks and other waterfowl find food and protection during the winter season. These birds doubtless form the principal food attraction for the eagles, but cottontail and swamp rabbits are abundant and no doubt supplement the fare.

Eagles found present on the four recent all-day winter bird census trips into the refuge, are as follows:

Dec. 6, 1952—4 Golden Eagles and 8 Bald Eagles;

Dec. 21, 1952—2 Golden Eagles and 16 Bald Eagles;
Feb. 14, 1953—0 Golden Eagles and 4 Bald Eagles;
Jan. 3, 1954—7 Golden Eagles and 12 Bald Eagles.

On the Feb. 14 date, most of the ducks and geese had left. As to the apparent disproportion of Goldens and Balds reported on the Dec. 21 date, the writer feels that this may possibly have been the result of lack of experience by the four observers in distinguishing Goldens from immature Balds. On trips made there by the writer on May 27, 1949, and April 17, 1952, no eagles were seen.

While the Bald Eagle is known to feed principally on fish along the coasts in summer, the literature is replete with statements that both it and the Golden Eagle are quite expert at catching wild ducks, coots and even wild geese. We did not witness such a capture but at three places on Jan. 3, found piles of duck feathers.

The Bald Eagles seen on Jan. 3 were nearly all as yet without white heads and tails. Only two of the 7 Goldens had reached the state of maturity where the entire tail was brown and the whitish under-wing patches no longer were present. The day being breezy, some of the Goldens were indulging in playful flight high in the air, soaring in circles, diving at each other, and as many as four together at one time. While thus engaged, the bright sun reflected from their breasts a golden-brown sheen not evident in the plumage of a mounted specimen. Discussion of these eagles observed on a previous visit may be found in THE MIGRANT for Dec. 1952, page 58.—ALBERT F. GANIER, Nashville (12) Tenn.

A SHARP-TAILED SPARROW AT MEMPHIS.—Because of a three-month drouth, the annual Field Day of the Memphis Chapter, T.O.S., was transferred from Shelby Forest State Park to President's Island, now connected to and within our city limits. There, on October 25, 1953, we first worked the muddy shore and adjacent weedy areas fronting an extensive willow thicket which is just below the closure dam. After following the shoreline for a short distance, Harry Landis, Jr., and I noticed a large number of sparrows, mostly Song Sparrows mixed with a few Swamp Sparrows, very close to us in a weedy strip. We decided to look over them because of the unusual number. Almost as soon as we reached the strip a sparrow flew up from under my feet and dropped down a short distance away. It showed very outstanding buffy head markings and its actions were most unusual. Going to the place it had dropped, I almost stepped on it again and we kept following it back and forth across the strip, as it was very difficult to get a good view of it. By this time we were joined by Miss Nelle Moore, Ben Coffey, Reed Knight, and David and Donald Wilson. All together we finally got the bird into good view after following it for fifteen minutes. We observed very carefully the ochraceous buff superciliary and lower facial areas and other markings of a Sharp-tailed Sparrow. In size and shape it closely resembled our common species of sparrows. We kept after it for another long period, getting a second look, too close for binoculars.

Apparently this is the first record of **Ammospiza caudacuta** for Tennessee. There are a few records (assigned to Nelson's Sparrow, a race) for eastern Arkansas and Missouri and THE MIGRANT (21:82, 1950) gives a record by Russell for Abingdon, Virginia. On a return visit, October 31, we failed to find it and most of the other sparrows were gone also, probably having just been migrating through.

The weedy strip was composed chiefly of three-square grass and barnyard grass with some cocklebur. We are indebted to Mrs. Ben Coffey for the identification of the grasses. Mention of them was made in "Mid-South Bird Notes", October 31, 1953, and it is interesting to note in the September 1953 issue of "The Wilson Bulletin" that Richard R. Graber (page 209) mentions barnyard grass and gray leptochloa at the site of the first Sharp-tailed Sparrows recorded in Oklahoma. In the fall of 1952, Graber worked spots along the South Canadian River and these two grasses were conspicuous in the dense stands of grass where finally on October 14 he collected both Sharp-tailed and Leconte's Sparrows. He mentions one or two inches of water at the grass. Our grass and weed strip was well back from the water's edge but had been under water earlier in the year, as evidenced by the deeply-cracked earth. — GEORGE PEYTON, JR., 1521 Vance Avenue, Memphis, Tennessee.

SECOND RECORD OF EASTERN SNOW BUNTING ON BIG BALD MOUNTAIN IN EAST TENNESSEE. — Since the discovery of the Snow Bunting **(Plectrophenax nivalis)** on Big Bald Mountain in Unicoi County, East Tennessee, on November 21, 1948 (MIGRANT, 19:64, 1948), I have been searching this locality for the species in late fall or winter of successive years. Trips to the top of Big Bald on March 6, 1949, November 20, 1949, October 29, 1950, January 21, 1951, November 18, 1951, and December 7, 1952, under diverse weather conditions, were, however, of no avail, no Snow Buntings having been seen on any of them.

I decided to try again this late fall and, favored by the onset of wintry weather a few days previous, re-visited this prominent and most beautiful of Upper East Tennessee's balds on November 29, a sunny to partly cloudy day, on which the temperature ranged from 21 to 33 degrees. Two to three inches of snow covered the woodlands slopes solidly, but on the treeless grassy expanse above the timber line, which is dotted with a multitude of humps and moss, the cover of snow was spotty where exposed to the sun.

Approaching the top of Big Bald at about 5500 feet altitude, I chanced upon a small bird moving on the ground and disappearing behind one of the moss humps. When it came into view again, I readily identified it as a female Snow Bunting. Seconds later it flew down the open north slope, emitting in flight a song not heard on the previous occasion, sounding like "twill-twill". I combed the northern slope but was unable to locate this bird or any other. Returning to the summit nearly an hour later, I found what seemed to be the same bird, to judge from its appearance. After ten minutes of following the Bunting, which seemed to prefer running to flying, I flushed it and again heard its song. Three or four hours later I walked over the summit once more and found apparently the same bird in the same place as in the morning. — FRED W. BEHREND, 607 Range St., Elizabethton, Tenn.

CECIL McKINLEY SHANKS, 1896-1953

On December 15, 1953, the Greeneville Chapter of the T. O. S. lost by death Dr. Cecil McKinley Shanks, an inspiring and dependable member of the chapter he was instrumental in founding. Prof. Shanks was working that afternoon with his students in the physics laboratory when he was stricken with coronary thrombosis.

Dean Shanks, Professor of Physics and Geology at Tusculum College since 1924, was also Dean of Men. He was graduated from Tusculum himself in 1922. He received his M.S. degree from the University of Chicago in 1927. After many years of service, he was awarded an honorary doctorate by his Alma Mater.

Dr. Shanks, a native Greene Countian, was born in 1896. Interest in nature and the out-of-doors developed early. He explored the caves of the area and climbed the mountains which dominate the local scenery. At the same time he acquired an intimate knowledge of local history, linking the places he knew with the families and events of their past. His early-developed enthusiasm for the natural sciences and for the out-of-doors enriched his teaching and contributed to his popularity and success in activities extending beyond the classroom. He sponsored Tusculum's Outing Club. His seventeen years' service in Scouting merited him the Silver Beaver Award.

With his background of scientific training, interest in nature, and skill in guiding group activities, it is fitting that the Greeneville Chapter of the T.O.S. was organized through his efforts. In December 1946, Dr. James T. Tanner and Dr. Lee R. Herndon met with a group of interested persons at the home of Dr. and Mrs. Shanks, there accomplishing the organization of the chapter. Dr. Shanks subsequently served it at various times as president and as statistician. He was especially good at compiling field trip records into useful form; he keenly enjoyed the fall trips for watching hawk migration. He unfailingly contributed time and effort to all phases of the chapter's activities. Future accomplishments of the group must depend considerably upon the enduring qualities of his influence.—RUTH REED NEVIUS.

DEATH OF HARRY P. IJAMS—A pioneer of bird study in the Knoxville area, Harry P. Ijams, died after a long illness on Jan. 12, 1954. A memorial will be published in the next issue of THE MIGRANT.

THE TREASURER'S HEADACHE

The Treasurer's headache can be alleviated by prompt payment of 1954 dues. If you are a chapter member, chapter treasurers will collect your dues and send them in. If not, send them directly to the T.O.S. Treasurer, Lawrence C. Kent, 1896 Cowden Avenue, Memphis (4) Tenn. Please inform him of any change of address.

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Knoxville, Tennessee

The simple truth about birds is interesting enough;
It is not necessary to go beyond it.

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GREAT BLUE HERON

Photo by Howard Barbig

Bird Names

By JAMES T. TANNER

Have you ever seen a Golden-crowned Accentor? Do you know the Bay-winged Sparrow?

Your answer will probably be “yes”, if you recognize the first as an old name for the Ovenbird and the second as the Vesper Sparrow. Bird names are part of our language, and have changed just as have other parts of our language.

Our birds have two kinds of names, their common names and their scientific names. The latter are established thru a set of rules which were instituted with the aim that each species should have thru-out the world one and only one scientific name and that each name should mean only one certain species. Their common names, and it these I am concerned with, are governed by no rules except that of usage and so are a part of our language. Even common names, however, should have definite meanings, and a desirable standardization of names resulted from the work of a standing committee of the American Ornithologists' Union which has published four editions of a “Check-List” of North American birds. The fourth edition of this “Check-List”, published in 1931, used names which became standard for several years among almost all ornithologists and bird students. Some changes in these names are now desirable, and some will be made in the fifth edition of this “Check-List which is being prepared. It is a matter of everyone's own opinion as to how many changes should be made. The subject is up for discussion.

One desirable change concerns the naming of species and subspecies. A species is a “kind”; the members of a species can interbreed, and typically they are all much more like each other than they are like members of any other species. In certain species the members in one geographical area differ slightly from those in other areas; the differences are usually intergrading because the members of the species can interbreed with each other. If there were complete interbreeding and mixing, the differences would disappear, but because the birds in one area are more likely to mate with birds raised in the same general area, rather than with ones from hundreds of miles away, the differences persist. When differences of this kind can be recognized, the species is divided into subspecies. As an example, the Juncos of the eastern United States are all members of one species, scientifically named **Junco hyemalis**. The Juncos found in the mountains of East Tennessee are slightly larger and grayer than those found in the northern States and Canada. The differences are recognized by placing the northern Juncos in the subspecies **Junco hyemalis hyemalis** and the southern Juncos in the subspecies **Junco hyemalis carolinensis**, the third name in each case being the “subspecific name”. Between Tennessee and New York, going northwards along the Appalachians, the nesting Juncos gradually get slightly smaller and slightly browner; there is no sharp change, and so it would be impossible, except arbitrarily, to draw a line separating the two subspecies.

MAY 4 1954

What has this to do with bird names? Just this: In the field we identify birds as to their species. Only exceptionally can we identify members of different subspecies without collecting the birds and examining or measuring them carefully. Because we identify birds by their species, we need common names for the species. To illustrate, a winter flock of Juncos might contain northern and southern birds; we cannot tell that by looking at them, but we can identify the species. But what shall we call them? In the fourth edition of the "Check-List", the northern subspecies was named "Slate-colored Junco", and the southern, "Carolina Junco"; no name represented the whole species. Just "Junco" would not be accurate, for there are other species, White-winged Juncos, Oregon Juncos, etc., of the western States which are distinct species. So we need a name that will apply to all members of the species.

Someone might argue that in the summer this would be no problem, for we would know that the Juncos of our mountains would be Carolina Juncos. But we do not really know that, because it is quite possible for a northern-raised bird to spend the summer with us. Furthermore, altho we are ourselves identifying the species, making a decision based on our own observations, we would be taking some other person's word that the birds of this area belong to a certain subspecies. We would be guilty of what George Sutton calls "false accuracy". For several years observers in a certain area reported Eastern Song Sparrows, this being a subspecies, until a series of Song Sparrows were collected in this area and found to be Mississippi Song Sparrows. They had identified the species correctly, but their attempt to be more accurate than they should have been led them into error.

Breeding Towhees in the vicinity of Memphis are intermediate between two subspecies (Tucker, 1950), which is not surprising because subspecies usually intergrade from one to the other. Neither "Alabama Towhee" nor "Red-eyed Towhee" would be correct for the Towhees of this area, because these are names for the slightly different birds on either side of this area, but a name that would apply to the entire species would be correct.

The desirability of having a singe common name for an entire species has become accepted in recent years. Roger Tory Peterson, in his 1947 edition of "A Field Guide to the Birds", used one name for a species, and the forthcoming edition of the A. O. U. "Check-List" is expected to do so. The choosing of the best names is not easy. Some people are traditionalists and want to use the oldest names, including the British names for species and groups that are the same on both sides of the Atlantic. Some would like to eliminate from the names of our birds all names that were transferred from European species to often unrelated species on this side of the Atlantic; names in this class are "Robin", "Warbler", and "Oriole". Others would like to discard all names which do not fit either the appearance or the habitat of the bird, names like Green Heron and Prairie Warbler. The problem is not easy and the choices are not unanimous.

Several individuals have made lists of the common names they prefer. The American Ornithologists' Union committee on nomenclature has drawn up a tentative list, and these common names were used in Murray's "Check-List" (1952) of Virginia birds. In an article in "The Chat", Messrs. Simpson, Chamberlain, and Quay (1953) have composed a list of common names they prefer for birds found in the Carolinas. I want to express my own opinion on certain names, and at the same time call the attention of MIGRANT-readers to the problem in order to get their reaction. Dr. Joseph C. Howell, University of Tennessee, has offered some suggestions about these common names. Because most bird students can refer to Peterson's "Field Guide" (1947), I will call attention to names of Tennessee birds only when there is a difference between the names used by Peterson and other names that have been or are being suggested.

Before making any comments on certain names, I will state three principles which are my guides in suggesting or opposing changes: (1) Names should be changed when it is necessary to provide a name for an entire species. (2) Names should be changed when it would eliminate confusion between the names of different species in this country (but not necessarily in the whole world, for scientific names will do that better). (3) Names should **not** be changed when they are well-established and in wide usage, not only among bird students but also among hunters, farmers, and the general public which have the same interest in these names as do bird students. Point (3) will frequently be in conflict with the other two; this is where we need discussion and compromise.

The following list of names is for species which have more than one subspecies in Tennessee or for which we have been using names belonging to subspecies rather than to the full species: Great Blue Heron, Horned Lark, Blue Jay, Loggerhead Shrike, Blue-headed Vireo, Black-throated Blue Warbler, Yellow-throated Warbler, Yellowthroat, Common Grackle, Eastern Towhee, Slate-colored Junco.

The next list has been changed from the familiar names by the addition of an adjective to identify them from similar, usually western, species: Common Nighthawk, Yellow-shafted Flicker, Eastern Kingbird, Common Raven, American Crow, Common Cowbird, American Goldfinch.

The following list consists of substitutions to make the common name more accurate, or more descriptive, or less confusing. There will be differences of opinion as to the desirabiliy of some of these: Anhinga for Water-Turkey; Common, instead of American, Merganser; Peregrine or Peregrine Falcon for Duck Hawk; Common, instead of Florida, Gallinule (Joseph Howell suggests Gray Gallinule); Ringed, instead of Semipalmated, Plover; Upland Sandpiper for Upland Plover; Dunlin for Red-backed Sandpiper; Traill's, instead of Alder, Flycatcher; Eastern Pewee, eliminating an unnecessary word; Marsh Wren, eliminating "Long-billed"; Sedge, instead of Short-billed Marsh, Wren; House, instead of English, Sparrow; Red-winged Blackbird for Red-wing.

There remains a group of birds for which new names have been suggested that are to me undesirable for one reason or another.

The spelling "Wood-Ibis" has been proposed because the bird is not a true ibis, but is a stork. Why not call it Wood Stork?

American Widgeon has been suggested to replace Baldplate, but the latter name is well established among hunters as well as bird students.

Great-crested Flycatcher has been proposed to differentiate our Crested Flycatcher from the Mexican Crested Flycatcher, but the new name is clumsy and inaccurate, the crest not being great. Common names do not need to separate all species.

The American Pipit has been renamed the Water Pipit. This name so far misses indicating the usual habitat of Pipits that it is very misleading. It is not strictly American, because it is also found in the Old-World Arctic. The name I suggest is Arctic Pipit or Northern Pipit, either of which will separate the species from Sprague's Pipit, the other pipit of our country.

Common Meadowlark has been suggested in place of Eastern Meadowlark. This will not sit well with residents of the Prairie States. "Eastern" and "Western" is descriptive of the two Meadowlarks' ranges, so let those names stand.

The five following changes that have been proposed would replace names that are established and familiar with others that fail to improve the birds' names, and the older names seem preferable. The proposed substitutions are: Swainson's, instead of Olive-backed, Thrush; Wilson's Thrush for Veery; Smalled-billed, instead of Northern, Waterthrush; Pileolated, instead of Wilson's, Warbler; Crow-Blackbird for Grackle. The suggested changes for the Waterthrush, Warbler, and Grackle are neither attractive nor especially accurate.

One particulary tough case is that of the Bachman's or Pine-woods Sparrow. Neither of these names seems appropriate, and yet no suitable alternatives have come to mind.

After more discussion we might be able to agree on a list of common names for the birds usually found in Tennessee that would serve as a standard at least until the next "Check-List" appeared. If any worthwhile discussion results from this article, it can be presented and summarized in the pages of THE MIGRANT.

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DEPARTMENT OF ZOOLOGY
UNIVERSITY OF TENNESSEE
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Evening Grosbeaks In The Great Smoky Mountains and Vicinity--1951 and 1952

By ARTHUR STUPKA

The first recorded occurrence of Evening Grosbeaks (**Hesperiphona vespertina**) in Tennessee was on November 22, 1945, at Milligan College, a few miles southwest of Elizabethton and near the northeast corner of the State (Behrend, 1945). These gregarious finches remained in Elizabethton and vicinity (Tyler and Lyle, 1945), in numbers which occasionally totalled more than a hundred birds, until May 4, 1946 (Behrend, 1946 a and b). In North Carolina, where Evening Grosbeaks had not been observed since the initial records of March 1922 (Pearson, Brimley, and Brimley, p. 348), these birds appeared at five localities early in 1946 (Chamberlain, 1952c).

Five and one-half years passed during which time no Evening Grosbeaks were observed south of West Virginia. On November 17, 1951, eleven of these finches appeared near Tusculum, Greene County, Tennessee, where they remained for a few days (Irvine, 1951). On the following day, November 18, one was reported from Paris Mountain, near Greenville, South Carolina (Chamberlain, 1952a); this not only established a new bird record for that State, but proved to be the southernmost latitude to which the species had penetrated in the eastern United States. On November 28, Evening Grosbeaks were reported from Chapel Hill and on December 14 from Lenoir, N. C. (Chamberlain, 1952b); before May 7, 1952, when they were last observed in North Carolina, reports has come from approximately two dozen widely scattered localities in that State (Chamberlain, 1952b). Only in the southeastern and extreme eastern parts of North Carolina were reports entirely lacking. Flocks containing up to an estimated 500 birds were observed.

The first record of Evening Grosbeaks within the Great Smoky Mountains National Park came on December 15, 1951, when Superintendent Preston, Chief Ranger Mernin, and Ranger Morrell observed 12 to 15 in one flock on the lawn close to Park Headquarters Building, two miles south of Gatlinburg, Tenn. The flock was feeding in a place where tulip tree seeds littered the ground. Because weather conditions, along with over-population and scarcity of food, have been suggested as the factors which precipitated the invasion of these birds (Chamberlain, 1952b), it should be mentioned that the preceding month, November 1951, had been exceptionally cold, colder than any of the three winter months that followed it. On December 30 I observed one Evening Grosbeak at Newfound Gap, near the center of the Great Smoky Mountains National Park; the same day a flock of 14 was seen near Pigeon Forge, a few miles north of Gatlinburg, by three members of the Tennessee Ornithological Society.

The flock of 22 Grosbeaks which I had under observation in the park headquarters area on January 7, 1952, appears to be the only Tennessee record during that month. On February 7, 1952, Mr. Joe Manley of Gatlinburg reported that he had just seen a flock numbering between 150 and 200 birds near the orphanage in Sevierville, Tenn., eleven miles north of Gatlinburg. He again reported the species, altho in fewer numbers, from the same vicinity on February 26 and March 10, 17, and 18, 1952. In the meantime Evening Grosbeaks appeared in Gatlinburg for the first time on February 24, when I estimated between 60 and 70 birds in a noisy flock near my house.

Beginning on March 20 and continuing thru April 16, these finches were observed in Gatlinburg by Manley and me almost daily, in numbers varying from one to approximately 150 birds. The largest flocks were seen on April 1 and 2 when I estimated between 80 and 90 birds and on April 4 and 14 thru 16 when Manley estimated 150 birds. Thereafter we had but two 1952 records: on April 27 when Dr. W. W. H. Gunn and Mr. D. S. Miller of Toronto, Ontario, reported three birds, and on May 4 when Mrs. Joe Manley reported seven, both localities being in the Gatlinburg area.

The only remaining record for the State of Tennessee is that of 17 Grosbeaks observed near Harriman from late February to March 1 and again from April 3 to 27, 1952 (West).

Up to the winter of 1889-90, when a great eastern migration of Evening Grosbeaks occurred, the species was almost unknown in the eastern states. Early in 1890 these birds had spread almost to the coast of Massachusetts (Forbush, vol. 3, p. 4) and appeared in Maine for the first time (Palmer, p. 527). After the winter of 1910-11, when another great flight took place, these finches appeared somewhere in New England every year (Forbush, vol. 3, p. 4). In North Carolina they were first observed in 1922 (Pearson, Brimley, and Brimley, p. 348); at Cape May, N. J., in 1930 (Stone, p. 887); in Virginia in 1940 (Murray, p. 104); in Tennessee (Behrend, 1945) and Newfoundland (Peters and Burleigh, p. 371) in 1945; and in South Carolina in 1951 (Chamberlain, 1952a). Should this trend continue, and there appears to be no good reason why it should not do so, it will be of interest to learn how deep into the southeastern states these unpredictable birds will penetrate during our lifetime.

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Harry Pearle Ijams, 1876-1954

When one has come to know a friend thru long years of close association, to have spent congenial hours afield with him in the study of birds, and to have noted his spirit of helpfulness to others, it is with keen regret that we must finally record his passing. These I am sure are the sentiments of all who knew Harry Ijams, especially those who shared with him his love of birds and who had known the hospitality of "Island Home", the sanctuary he and Mrs. Ijams had created on the Tennessee River above Knoxville.

"H. P.", as his friends called him, was born in Knoxville July 20, 1876, and was therefore well past 77 when he died on Jan. 12, 1954. He was a commercial artist by profession, first in business for himself and later a staff artist for "The Knoxville News-Sentinel."

The Great Smokies were his favorite camping and recreation place and he knew the region well. When the National Park there was first projected, he assisted enthusiastically in the campaign, with posters, cartoons and cartographic maps of the area. The writer had known H. P. thru correspondence as early as 1919, but came to know him well when he became one of a party of five, organized by the writer in 1924, to make a further survey of the birdlife of the Smokies' mountain tops. Camp was made on Siler's Bald, from May 29 to June 5, and the results were published later. Subsequent trips were made to Mt. LeConte and to Eldorado ("Elrado") and H. P. recalled these rough trips often in his later years.

Island Home from the beginning was the rallying point for the Knoxville T.O.S. chapter, for there all bird students were made to feel thoroughly at home in the attractive grounds. Spring Field Day there was the big event of the year and the "century mark" of 100 species was often passed the first Sunday in May. The Ijams home held a good library of bird books and in an adjacent building was maintained for many years a small museum of mounted birds and mammals. Nesting boxes were well distributed thruout the grounds, chiefly of a unique design that he had perfected.

H. P. was elected President of the T.O.S. in 1932 and has been a frequent contributor of articles to this magazine. We are indebted to him for the attractive cover of THE MIGRANT which has been in use for a number of years. The T.O.S., and especially the Knoxville group, will always cherish recollections of Harry Ijams. I have requested some of his long-time friends to add a word to this brief sketch and these follow below.—ALBERT F. GANIER.

Harry Ijams was the authority thru whom those interested in Nature in the Knoxville area checked their lore and made many acquaintances of kindred interests. Even before I knew him personally, I felt his influence, for whether making trips across the mountains or canoeing to Chattanooga, I found I was following trails blazed by him and Arthur Ogden year before. Later I came to know him as the kindly nature teacher who, with his gracious wife, made me and other young nature lovers feel we were actually an asset to his home while he devoured his food in fancied exchange of trivial labors performed in such things as making swimming pools for us to swim in.—BROCKWAY CROUCH.

Thirty years ago this coming May I met Harry Ijams on a bird expedition into the high Smokies. From the very first meeting he impressed me as an enthusiastic, persistent and accurate observer of birds. All our associations since then, at his beloved Island Home and elsewhere in Tennessee, have only confirmed this first impression. To him, more than to any other person, is due the success of the Knoxville Chapter. And from Island Home, the gracious home where "H. P." and Alice Ijams lived have radiated influences which bless and brighten the lives of their many friends.—G. R. MAYFIELD.

The Ijams' sanctuary welcomed friends and visitors, scouts and students, as well as birds. Entering it, one felt removed spiritually, as well as physically, from the busy routine of life. For beyond Mr. Ijams' interest in ornithology was a great love for the birds themselves, which they appeared to sense. Prothonotary Warblers, ordinarily of retiring habit, nested year after year over the lily pool a few feet from his front door. Mr. Ijams' delightful humor and spirit of hospitality will continue to be an inspiration to all who knew him.—MRS. ROBERT A. MONROE.

New T. O. S. Chapter In Chattanooga

A new chapter, the Chattanooga Chapter of the Tennessee Ornithological Society, was officially recognized on March 10, 1954. Mrs. Robert A. Monroe of Knoxville, President of the T. O. S., welcomed the chapter at a supper meeting, and then gave an illustrated talk on bird identification.

The officers of the new chapter are: Mrs. Eugene M. West, president; Dr. Wilbur K. Butts, vice-president; Mrs. Leon F. Cross, treasurer; Mrs. Stanley Barr, secretary; Miss Mabel Norman, historian. Much of the credit for the new chapter must go to Mrs. West, who last year organized the group as the Chattanooga Bird-Study Club.

The chapter has scheduled regular field trips and evening programs. The older chapters wish it the best of success!

The Round Table

BIRD CASUALTIES AT SMYRNA AIRPORT.—On the night of October 5, 1953, eighteen birds were picked up by the writer near the base of the ceilometer at the U. S. Army Air Base near Smyrna, Tenn. This was a minor casualty list compared with similar occurrences which happened on Sept. 9-10, 1948, and on Oct. 7-8, 1951 (MIGRANT, 20: 9-12 and 22: 57-60), but data secured on this occasion is of interest in solving the mystery of why birds attracted by these lights are sometimes killed.

The night of Oct. 5 brought in a cold front of medium intensity, being accomplished by a light wind from the northwest and light rain at dusk. The clouds (the "ceiling") were low until shortly after midnight. Data on ceiling, wind, and temperatures were as follows: 10 p.m., (900 ft., NW 13, 60 degrees F.); 11 p.m. (1100 ft., N-NW 13, and 60); mid-night (1100 ft., N-NW 8, and 59); 1 a.m. (3700 ft., NW 11, and 58); 2 a.m., skies had cleared and birds no longer present.

Shortly after midnight the Nashville Airport phoned Mrs. Amelia Laskey, Mrs. Katherine Goodpasture and the writer that many birds were about the ceilometer light there and we went out to investigate. The number had decreased somewhat when we arrived but many birds were still to be seen flying about as well as heard. Only one dead bird was found but another brushed our clothing in flight and passed on. As the sky cleared we left, there being few birds in evidence.

The writer then drove ten miles southeast, to the Smyrna location referred to, and found that conditions there also had become normal. Looking about for dead birds, he found 15 that were dead and 3 still alive. They were on the concrete paving (a few on grass) and were all on the southeast side of the ceilometer, from 40 to 100 feet away. It is believed that they all fell within 2 or 3 hours prior to midnight, when the ceiling was very low. The species found were as follows: Red-eyed Vireo, 2; Ovenbird, 4; Tennessee Warbler, 7; Myrtle Warbler, 2; Chestnut-sided Warbler, 1; Magnolia Warbler, 1; and Bay-breasted Warbler, 1.

The cause of the fatalities is not chargeable to any lethal component of the intense light beam, because birds have been repeatedly seen to fly thru it without falling. The probable explanation is that birds, flying under the low cloud ceiling, are attracted to the light in or near their path, that many low-flying ones which fly thru the beam are temporarily blinded and, losing their sense of direction and altitude, strike the paving before they know they are dangerously close to the ground. —ALBERT F. GANIER, Nashville 12, Tennessee.

CEILOMETER AND OTHER INDICATIONS OF NOCTURNAL MIGRATION, MEMPHIS, OCTOBER, 1953—At 7:45 p.m. on Oct. 5, 1953, J. S. Hursh telephoned me from the Municipal Airport to advise that birds were fluttering in the ceilomter beam. On duty with him at that time in the U. S. Weather Bureau office were Robert Grace and Arthur Kline. Fortunately, weather conditions were relatively mild, otherwise, since the migration appeared heavy, another avian disaster could have resulted, similar to those described in THE MIGRANT for March 1949 and December 1951. Mrs. Coffey and I remained at the airport from 8:30 to 9:30 p.m. while Mrs. Elizabeth Barton and Lawrence Kent were present from 10 to 10:30 p.m.

The surface winds were from the north and northwest, at 10 to 15 miles per hour; at 3000 feet altitude the velocity (9:30 p.m.) was 25 miles per hour. The temperature was 59°F at 7 p.m., to 60° at 11 p.m., following a daytime high of 71°. At 7:15 p.m. when the birds were first noted the ceiling was 700 feet, changing to 1200 feet at 8 p.m., 3500 feet at 9 and 9:30 with scattered light clouds at 1300 feet, 4000 feet at 10 p.m., 4200 feet at 10:30, 9000 feet at 11 p.m., 13,000 at 11:20 (birds estimated passing then at 2500 to 3000 feet) and gone at 11:40 p.m.

In the upper part of the beam could be seen many fluttering birds and/or insects—it was impossible to tell which, even with 7x50 binoculars. Kent reported the presence, at 10 p.m., of three Nighthawks, which from their actions were evidently feeding on insects. We found a large sphinx moth resting on the base of the light. Occasionally, at a height of about 100 to 200 feet we could see the body and beating wings of various small birds which often came back near the beam after short arcs of circling. A Solitary Sandpiper was noted around the light for some time, at a height of 60 to 100 feet, the tail pattern as well as size and shape being discernible. I started to tally the "chips" heard for time periods but because of the circling noted, dropped the idea. Many more were heard at 9 p.m. then when we arrived at 8:30. Some seemed to be passing directly over without noticeable pause, including a Black-crowned Night Heron and a Green Heron heard.

Returning to Coffey Grounds, five miles north and a mile west, I made a listening check to ascertain if there was a good migration going over or whether a relatively small number of circling birds at the beam gave that impression. At 1 p.m. at least two birds a minute were heard, indicating many birds were passing, and at 11 p.m. they were still moving. A Black-crowned Night Heron was heard each time.

The ceilometer is located on the south edge of the airport near the west side, with a heavily traveled, wide road outlining these two sides. To the north lie grassy areas and runways. To the south, across the road was a cottonfield. Before work the next day Mrs. Coffey and I searched for birds from 7:10 to 7:50 a.m. North of the light she found a huddled Red-eyed Vireo which was released, in fair condition, later that day. Crossing to the southeast, the direction that wind should have carried any exhausted bird, I moved south on a gravelled road and found on it a dead Chestnut-sided Warbler, about 250 yards SSE from the ceilometer, then 30 yards farther, a dead Red-eyed Vireo. The cotton field, south of the light, was a poor place to look for small birds, but during a zigzag traverse I found a dead Oven-bird, slightly over 200 yards SSW. Based on these limited findings I would estimate casualties at 10 to 20 birds.

That same October 6 morning two dead warblers were found in downtown Memphis, one just north of the Post Office and one two blocks east.

A. L. Meyer brought in a Magnolia while Mrs. T. I. Klyce reported hers as unknown. If it had been possible then to get a report on any others so found, there would have been a meagre comparison of uptown with ceilometer casualties, under lightly disastrous conditions. Such a request was carried, two evenings later, thru the courtesy of Eldon Roark, in his widely read column of the "Memphis Press-Scimitar." This brought me another Magnolia, apparently dead in the early night, and found 7 a.m. Oct. 15 on a Court Square sidewalk by Frank G. Knight. Above there in an 18th story office I identified a Magnolia which Charles Crump then chased out a window, having given up the task the night before when the bird was first noted. This would indicate a migration Oct. 14-15.

On the evening of Oct. 23 when our "Moon Watch" was clouded out, Lawrence Kent checked the ceilometer 7:55 to 8:20 p.m. but no birds were in evidence. None were heard then at home. At 8:58 p.m., Oct. 27, a small number of Blue or Snow Geese were heard near home. The previous night "geese" were reported over the Glenview area to Oliver Irwin.

During the period when we sat at the telescope, watching for passages between us and the full moon, migration was apparently light three nights, increasing on two nights. On Oct. 19, 16 passages were noted in 2¾ hours, while on Oct. 20, 63 were noted from 7 to 11:30. Oct. 21-22, 22 were recorded 8:29 to 2:00, with 1½ hours lost because of clouds. Over 90 passages each night were noted Oct. 22-23, 7:25 to 3:12, and Oct. 24-25, 8:36 to 1:00, the larger part before 10:30 p.m. Oct. 23 was cloudy early and schedules cancelled. There was no radical change in weather conditions during the six-day period.—BEN B. COFFEY, JR., 672 North Belvedere Boulevard, Memphis, Tenn.

A YELLOW RAIL AT NASHVILLE.—On October 15, 1953, a bird of this species was captured in the suburbs of Nashville by a Mr. Sternheim who gave it to Mr. Jim Robins who in turn gave it to me. It was alive when caught but died shortly after and was prepared by me as a study skin for my collection. The bird was a young of the year, with wing measurement of 3.15 inches, and had lost its tail feathers. This is the first record of this species for Tennessee.

At Baton Rouge, La., these little rails are regularly captured in the fall when the hay fields are mowed in late October. It has been found to occur in Arkansas at the same time, when the rice fields are cut.—ALBERT F. GANIER, Nashville 12, Tenn.

SAW-WHET OWL WINTERING NEAR NASHVILLE, 1952-1953.—A Saw-whet Owl **(Aegolius acadia)** was found perched about six feet from the ground on a small lower limb of a beech tree in Basin Spring woods, near Nashville, Tenn., on Dec. 6, 1952. The brown stripes of its breast were a nearly perfect protective coloring against the twisted brown leaves. It was roosting on the same perch the following day, and again sat quietly while observers stood and talked within four or five feet.

The true identity of the owl was not suspected, however, until Dec. 11, when Mrs. Laskey at first glance said, "That little owl doesn't have horns, does it?" To her goes full credit for its identification. As before it sat without flying while careful observation continued.

It was missing Dec. 13, but was present again on Dec 17 and 18, when Mrs. Laskey and I made an unsuccessful attempt to catch and band the the owl. After Dec. 18 no further evidence of the owl was seen until Jan. 14 when fresh whitewash and a fresh pellet were found under the original perch; the same was found on Feb. 3. Since the owl seemed to be still in the woods but to have deserted the beech tree for a roost elsewhere, a search for its new roosting site was started. On Feb. 21 a white-wash marked cedar tree was located, beneath which 21 pellets were collected. Even tho the owl was not in the cedar, I hoped I had found a favorite roosting tree. Two days later, Feb. 23, there sat the Saw-whet about twelve feet from the ground close to the trunk. It was present in this cedar on six additional dates and was absent only once thru March 8, after which it was not seen. From Dec. 6 thru March 8 the owl was positively recorded on twelve dates in all.

During this interval a total of 69 pellets was collected. The pellets were somewhat variable in size. Those examined closely seemed to be composed entirely of remains of small mammals. As far as I know, this is the first series of records on the wintering of a Saw-whet Owl in this section.

On March 1, 1936, Ben Coffey and others at Memphis were able to study a Saw-whet at close range (Migrant, 7: 19. 1936). Mrs. Laskey banded one which was caught March 16, 1940, by high school boys in East Nashville (Auk, 58: 96. 1941). A. F. Ganier secured from Mr. Sedberry of Thompson Station a mounted specimen said to have been taken locally during the winter of 1943 (Migrant, 17: 67-68. 1946). Thompson Station is about 13 miles south of Basin Spring. On the basis of song records at night, Arthur Stupka has established the Saw-whet Owl as a regular summer resident and a most likely breeding species of the Great Smoky Mountains (Migrant, 17: 60-62. 1946).—KATHERINE A. GOODPASTURE, 408 Fairfax Ave., Nashville, Tenn.

HOUSE WREN NESTING SURVEY IN UPPER EAST TENNESSEE, 1953.—For the second season the Elizabethton Chapter of the T. O. S. has sponsored a nesting survey of House Wrens (**Troglodytes aedon**), inviting the other chapters of East Tennessee to participate. Altho the area was not covered as thoroly as we had hoped, the results reported are very gratifying.

It appears that in areas where the count was repeated from the previous year, that the species is holding its own or increasing. The count was conducted on July 12 except for Kingsport where the period of counting was from July 12 to 19, taken in conjunction with a census of summer bird residents. Mrs. Anne H. Switzer reported for the Kingsport Club a total of 25 nests in two residential areas containing about 30 lawns in the northeast section of Kingsport. Most of them occupied boxes provided for them, and it is the opinion of the Kingsport group that anyone in that area who puts up a properly constructed wren box can have House Wrens in residence.

Mrs. Hugo Doob, Jr., reported three nesting pairs from Johnson City: Oakland Gardens, Boone St. across from Memorial Hospital, and 606 Franklin St.

Robert Herndon and the writer covered practically all of Elizabethton during the early morning of July 12, and located three nesting pairs all in the vicinity of Pine Hill Road extension just outside the city limits. Upon returning from the trip about noon, we found a House Wren in the gathering cage of my double-S trap. It was banded and released.

Dickie Hughes assisted in making the plans and carrying out the census.

We approve of the suggestion of the Kingsport group that the census be conducted over a longer period. We propose another House Wren nesting survey this summer, and are setting the dates July 10 thru 19. We earnestly solicit the assistance of all who live within the nesting range of this species in Tennessee which would include the area between Knoxville and Bristol. You are urged to put up suitable nesting boxes as early as convenient. If any individual or group would be interested in assisting with this project, please contact the writer.—LEE R. HERNDON, 1533 Burgie Place, Elizabethton, Tenn.

The Season

MEMPHIS—September continued hot and dry, with about normal temperatures until February which averaged 6° above normal. Cold periods, low 16° to 19°, were Dec. 18, 23, and 24, and Jan. 11-13. The first rain since July 21 came Oct. 26 and monthly averages became almost normal by virtue of few but heavy rains. However, January precipitation was high (almost 4" snow and sleet) and as a result, ducks, low in species and numbers at Christmas time, became more common. During low stages, Edward Wooldridge reported 200 White Pelicans, Nov. 1, at Horseshoe Lake, Ark., and Rev. Wm. Hearn 100 American Egrets, Nov. 16, at Sardis Lake, Miss. On Sept. 27 at Pocket Lake near Cold Creek (Ft. Pilow Area) over 500 Wood Ibises were seen by Ed Attebury. Two adult Bald Eagles were noted Sept. 26, at Lakeview by Lee Grimmig who also found a Long-eared Owl (shot) on Dec. 24, four miles west of Blackfish Lake, Ark. Two Golden Plovers were at the Penal Farm, Nov. 8, and a Woodcock at Coffey Grounds, Nov. 12. Caspian Terns were seen on Lake McKellar (Tenn. Chute): 1, Sept. 12, (Hearn) and 6, Sept. 21, (George Peyton). A Yellow-billed Cuckoo with injured wing was found in a park, Dec. 9 (brought to J. E. Jolly). The last flock of Chimney Swifts noted were 500 on Oct. 22. The fall swallow migration was generally poor near Memphis; however, 75 Trees (usually abundant), 350 Barns, and 125 Cliffs were seen Oct. 18 at Lonoke, Ark., fish hatchery (Alice Smith, Mrs. Coffey). A House Wren was found near Raleigh on

Oct. 31 and Nov. 28 but not Dec. 27 or Jan. 24. Short-billed Marsh Wrens were in weedy meadows along the Lakeview levee: 4, Aug. 8; 16, Aug. 23; and 2, Aug. 29. No nests could be found. This was our nearest approach to the record numbers of Aug. 9, 1936. (Migrant, 7:38, 1936 and 13: 12-13, 1942); We often fail to find this species there in the fall.

George Peyton reports a good warbler migration, even in an average city back yard. A Yellow-breasted Chat was trapped at Coffey Grounds, Dec. 3 (LC), and released Dec. 4 (BC). The Western Meadowlark appeared at the Penal Farm Nov. 1 with about three present since then; we have been unable to locate it elsewhere in W. Tenn. Regularly found near Lonoke, Ark., this season we also found the species Nov. 29 west of Walls and north of Friars Point, Miss., but not on Mar. 7. A female Rose-breasted Grosbeak was seen Oct. 31 near Raleigh. At the old Dyersburg Army Air Base, Halls, I saw 4 Tree Sparrows, Dec. 13. (Capt. Burt Monroe kindly write me that the species was not recorded there in 1943 and 1944). The Charles Seahorns at Germantown report our earliest ever White-throated Sparrows, 3 on Oct. 1, while White-crowned Sparrows (3) were first seen there Oct. 7. — BEN B. COFFEY, JR., Memphis, Tenn.

NASHVILLE—Fall brought the usual species of winter residents, but in somewhat smaller numbers. Our very dry weather during the summer and well into the migration season caused a noticeable shortage of wild berries and other foods which attract birds. Some interesting discoveries were made during this period: a Virginia Rail was found at the edge of the city Sept. 22; a Sora Rail was killed on the Franklin Road Oct. 1; a Short-eared Owl was shot in Donelson Oct. 30.

Mrs. Amelia Laskey's banding records indicate that the Mockingbird has again reached normal numbers in the Nashville area, the first time since the disastrous ice storm of 1951; she banded 56 individuals at her home station between Aug. 14 and Oct. 20.

On the Nashville Christmas Count the all-time high for species count was tied. But there appeared to be a scarcity of a few species: Yellow-bellied Sapsucker, Field Sparrow, Myrtle Warbler, Goldfinch, and Red-bellied Woodpecker. Unusuals for the winter season were: Harris Sparrow (KAG), reported on the Christmas Count; 2 Least Sandpipers at Jackson Lake the middle of December (GWM and AOA) and again on the Christmas Count; a Short-eared Owl in Buena Vista Marsh again, the second consecutive winter, observed by several different groups and last seen on Dec. 27; a Brown Thrasher in Bell's Bend Nov. 14 and Dec. 27; a Barn-Owl in Bell's Bend Nov. 14; 4 Phoebes, a Brown Thrasher, and a Sharp-shinned Hawk were seen (DO) at Wartrace on Dec. 26.

Sizable flocks of ducks, from 25 to 60, have been seen at Radnor Lake at intervals from the last of January until the date of this report, most noteworthy being 3 Old Squaws, first observed on Jan. 27 (JO, EG) and still present Feb. 5.

One roost in the vicinity of Nashville has been under observation. It is in a thickly populated residential area used for the second consecutive winter by Starlings, Robins, a few Grackles, and fewer Cowbirds and Red-wings. Starlings were at their peak Jan. 19, estimated 200,000, while Robins were at their peak on Feb. 9, estimated 140,000.

Interesting Spring notes are as follows: Singing Phoebes in Warner Park on Feb. 21 (ARL); a banded Brown Thrasher returned to Mrs. Laskey's station on Mar. 1; a Horned Lark's nest with two eggs in their usual breeding territory (KAG) on March 7; this proved to be the complete clutch.—SUE M. BELL, Nashville.

KNOXVILLE—Interesting fall records were an immature Blue Goose on Nov. 27 (Lorenz), a Florida Gallinule on Oct. 18; a single Nighthawk on Oct. 19 (Overton) which is late for this species; 6 Long-billed Marsh Wrens and 3 Short-billed Marsh Wrens on Sept. 26 (JTT) in rushes bordering Loudon Lake; a Grasshopper Sparrow on Nov. 8 (JCH); and a Lincoln's Sparrow seen on a TOS field trip in the Gallaher Ferry district.

Winter temperatures were lower than during the past two years, being about average. There were no exceedingly cold spells nor bad storms. Very few observations of birds were made that seem unusual or significantly different from the average. A few Red-breasted Nuthatches were seen in October, but none have been reported since then. There have been small numbers of Purple Finches and no Siskins. White-crowned Sparrows have been seen more regularly than in the past. Ducks have been few and rather irregular, the most unusual being 9 White-winged Scoters seen near Concord by R. Lorenz.

Purple Martins were reported on March 1, the day of the heaviest snowfall of the winter; this was followed by cold weather and the arrival of other Martins has been delayed.—JAMES T. TANNER, Knoxville.

GREENEVILLE—The past season, colder than recent winters, remained mostly dry, with a February rain and a March 1 snow.

Purple Finches, not reported until November 24, were afterwards seen frequenty thru-out the winter, as were Cedar Waxwings and Robins. The one Red-breasted Nuthatch was seen in the fall. Horned Larks in a wintering flock of around 70 birds have been present since Nov. 11. Lark song was heard Nov. 2, 6, and 24, and again Feb. 26; on at least the earlier dates it was from a lark frequenting the slope on which a pair spent last nesting season. Five Tree Sparrows, seen by Richard Nevius on Dec. 28, were reported in the 1953 Christmas Count.

Early interest in nesting materials was shown Jan. 8, when a female Cardinal and a male English Sparrow carried materials for short distance. Carolina Wrens carried materials Feb. 25 and Mar. 12, and Bluebirds noisily investigated nesting sites on Feb. 15 when warm weather suddenly arrived. On March 15 Richard Nevius found a Black Vulture incubating.

Accompanying the Feb. 15 heat which reached 70 degrees during the day, Mockingbirds, Phoebes, Doves, and Cardinals sang riotously. Cardinals had been previously heard Feb. 1, Mockingbirds and Phoebes not at all. Doves had cooed briefly Feb. 13 and 14. Field Sparrows at scattered points came into song Feb. 18. A deep snowfall on March 1 checked bird activity, but only for a few days.

The mid-February arrival of weather from southward carried with it early migrants. A Grackle, heard Feb. 14, was just ahead of the heat; by February 16 Grackle flocks were here. Five Red-wings on Feb. 16 were the first seen since Nov. 28. On Feb. 17 came the first large flock of Robins, about 100. On March 8 thru 12 Alfred Irvine had up to 50 American Pipits following his tractor as he plowed. — RUTH REED NEVIUS, Greeneville.

KINGSPORT—Warm dry weather marked our autumn. From Sept. 25, when we had a shower, until Oct. 27 no rain fell, and our first frost was delayed until Nov. 7. For the second time the Kingsport Bird Club conducted a fall census. We listed only 59 species compared to 71 for 1952. The weather was mild with no snow until March 1. Small flocks of Robins were more abundant than usual. Perhaps because of the open winter, our winter visitors did not find it necessary to feed at stations. At any rate there seemed to be a scarcity of Juncos, White-throated and White-crowned Sparrows, Horned Larks, Snipe, Siskins, and Purple Finches.

The number of species of waterfowl observed here during the fall and winter continues to increase. During this past winter we have seen American Golden-eye (first observed very early, Oct. 18), Wood Duck on Nov. 1, Bufflehead on Nov. 25, and Baldpate. A flock of the latter varying from 12 to 27 have been seen associated with Lesser Scaup at the local fish hatchery during the last of February and the first of March.

As spring approaches we have recorded a few unusually early observations. Tom Finucane saw Fox Sparrows during the first two weeks of March, our only record since January of 1950. Also early are dates for Pigeon Hawks observed by Mr. Finucane on March 3 and 7. The first date for Chipping Sparrow this year is March 9.—ANN HARNEY SWITZER, Kingsport.

ELIZABETHTON—The winter has averaged 4 or 5 degrees colder than any for the past ten years. The rainfall in January exceeded 7 inches while for December it was about normal and for February about half of normal. Snowfall was very light until the night of Feb. 28 when we had between 10 and 12 inches in this area. Considerable damage was done to trees and shrubbery.

On Dec. 19 Roby May and the writer observed at least 6 Northern Horned Larks in a flock of more than 150 Prairie Horned Larks at the County Farm. Horned and Pied-bill Grebes have been present in this area all winter, this being the first winter records of Horned Grebes. Mallard, Black Ducks, and Buffleheads have been present in appreciable numbers all winter. An Old Squaw and female Golden-eye were first observed on Wilbur Lake by the Brownings on Jan. 17; the Old Squaw has been present since that date.

The following are noteworthy records for the season: 2 Blue-winged Teal on Feb. 10 near Milligan (Mrs. J. C. Browning and Mrs. D. E. Bashor); a total of 7 Ring-necked Ducks on Wilbur and Watauga Lakes, Feb. 13 (Roby May, LHR); a male Redhead on Wilbur Lake, March 7 (Brownings); 3 Herring Gulls on Watauga Lake, Jan. 24 (Lois Herndon, LRH); Wilson's Snipe near Franklin Club, March 3 (LRH); a pair of Woodcock, absent from this area for the past two seasons, first observed in their courtship flight on March 8 (RDM, LRH); Red-winged Blackbird on Feb. 15 (Mrs. J. C. Browning); Rusty Blackbirds on Feb. 21 (Brownings); Cowbirds and Savannah Sparrow on Feb. 27 (RDM, LRH). LEE R. HERNDON, Elizabethton.

Book Review

BIRDS OF MEXICO, A Guide for Field Identification. By Emmett Reid Blake. University of Chicago Press, $6.00.

Only shortly removed from us and our neighbors lies Texas, and beyond is an almost new world for the bird student. In recent years the practicability of a Mexican vacation has increased manyfold, but the bird student has been under a handicap in learning the wealth of temperate and tropical bird life there. We owe Dr. Blake a debt of gratitude for bringing us the first comprehensive handbook on the birds of Mexico. Listed within its 644 pages are 967 species, of which it is stated over 80 are endemic to Mexico and some 400 others do not extend beyond its northern border. The Collared Aracari is illustrated by the lone colored plate, while 329 species are shown in line drawings by Douglas E. Tibbitts, also of the Chicago Natural History Museum staff. For those who like to use keys, most of the 89 families are given one. Diagnostic field marks are given for each species, with its range in Mexico and brief pertinent remarks.

A copy became available in May, 1953, just before our fifth vacation trip down the Inter-American Highway and it simplified our studies considerably, especially at the end of the line for which we had no published lists. For those on a first trip it will be a godsend. The two Peterson guides and Pough's guides will still be needed, and Sturgis' **Field Books of Birds of the Panama Canal Zone** can help. Our original notebooks, from study of museum skins, can now be mostly dispensed with (except for our added notes on calls and songs) but our Kodachrome slides of museum skins will continue to assist, covering a void in the book.

Naturally the handbook is weakest in description of songs and calls and a shortage of field experience peeps thru at times. But the tremendous contribution that it will make is to stimulate and assist in developing further information on identification, range, and natural history of these birds, represented for up to a century in the museums of the world. The serious amateur should certainly appreciate an available standard for nomenclature and a scientific order or arrangement of the species. Different vernacular names and different sequences were used by various authors and often the same author used a different name in a later list. One kingbird we now know by four names. With the advent of Blake's book we had to learn new names for about 150 species. But new adventurers across the border can start fresh while past students now have a standard to follow.

Of interest locally is a foretaste of projected changes in "common" or vernacular names. Considerable time and study were evidently given this vexing question and we see the fine hand of our friend, Gene Eisenmann, apparent in its handling. We were listeners to discussions at meetings of the Linnaean Society of New York and refer you to "The Wilson Bulletin", 58 (4): 210-215, December, 1946, for some of the whys and wherefores. Where we might differ on certain names, someone else would differ only on others and it is the task of "the authority" to set a suitable standard. But, with a reviewer's prerogative we inject just a few of our thoughts. Here, I shudder to even think of referring to our state bird as the "Common" Mockingbird. Altho there are reasons for descriptive names rather than using men's names, still if there is an Audubon's Warbler, there should be a Wilson's Warbler rather than a Pileolated Warbler. Even the cover of "The Wilson Bulletin" should protest. Melodious Blackbird is certainly a happy choice for this attractive Mexican species, but if I hadn't found it as Sumichrast's Blackbird originally, would I have been interesed in learning something about Father Sumichrast and his work? We do owe these early ornithologists a memorial "name". Possibly we would get as big a thrill out of seeing a "brush-finch" as an "atlapetes", — the former gives an idea of the relationship of several interesting species, the latter seems more exotic. Some day we may have Mexican bird-hobbyists to a greater extent than now; the name "atlapetes" might have been a vernacular name common to both our languages.

A tremendous amount of work and study has made this book available to us. Turn your thoughts, if not your steps, southward!—BEN B. COFFEY, JR.

ANNOUNCEMENT OF THE ANNUAL MEETING

The 1954 annual meeting of the T. O. S. will be held at Standing Stone State Park, near Livingston, Tenn., on May 8 and 9. Rooms and meals may be had at the park; reservations for these, stating the numbers, should be made by May 1 with Mrs. R. A. Monroe, 1424 Tugaloo Drive, Knoxville 16, Tenn.

Members arriving Saturday a.m. should bring their own lunch for that day. Saturday dinner ($1.00), Sunday breakfast (65c), and Sunday dinner at noon ($1.50) will be served at the park. The schedule includes the directors' meeting Saturday afternoon, field trips Saturday afternoon, a program after the Saturday dinner, and field trips on Sunday. Standing Stone State Park is a good place for birds.

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Spring Water Birds at Nashville-1954

By ALBERT F. GANIER

The spring of 1954 proved to be the best in our experience for observing water birds in the Cumberland River bottoms at Nashville. It is probably true that the creation of many reservoirs on the Tennessee and Cumberland Rivers is causing some of the Mississippi Valley transients to shift eastward.

The following list is made up from observations in what is called the Buena Vista bottoms, where 9th Avenue crosses the half-mile wide level area from north Nashville to the river. The bottom comprises non-wooded grass lands (mostly ploughed over the past winter) and a private airfield. The list also includes observations made in similar bottoms farther down the river on May 15 and 22. Buena Vista bottom normally remains rather wet thru May and crayfish chimneys are widely scattered over the area. Wet conditions during this spring have kept several small shallow pools and some of the ditches filled with water. A marsh of several acres lies against the foot of the adjoining hills. A number of additional species, chiefly ducks, that were recorded on Radnor Lake in the hills are not included in this list.

I am indebted to the following observers for records that supplement my own field trips: Ruth Castles, Katherine Goodpasture, G. R. Mayfield, John Ogden, Jenny Riggs, Dan Schreiber, Charles Weise, and Ruth White.

GREAT BLUE HERON (Ardea herodias). One on April 27 and another on May 15. (Last year an American Egret was seen here on May 17).

GREEN HERON (Butorides virescens). Observed regularly after April 11. Two or three pair breed here.

BLACK-CROWNED NIGHT HERON (Nycticorax nycticorax hoactli). While these birds are ordinarily nocturnal, a few were seen feeding in the bottoms in daytime: 5 on April 1, 1 on April 17, 2 on May 15 and 1 on May 22. Their nesting colony on a hillside cedar woods (see MIGRANT, 1951, 22:5), was visited on May 15, 1954, and was found to have increased to between 40 and 60 nests containings eggs and young. In 1953, some early members of this herony had returned on March 8.

YELLOW-CROWNED NIGHT HERON (Nyctanassa violacea). A dozen or so came in as early as April 17 and remained for some time; the last counts being May 12 (ten), May 15 (fourteen), and May 22 (two). One or more pair have nested in the bottoms for several years past, in woods now cleared away. It has been a treat to local observers to study these unusual and spectacular birds. They are quite unwary and permit observation as close as a hundred feet away while feeding. Their chief food seems to be the plentiful supply of crayfish.

AMERICAN BITTERN (Botaurus lentiginosus). Observed at the marsh edge and on the overgrown ditches as follows: April 11 (one) April 24 (three), April 27 (one) and May 15 (one).

LEAST BITTERN (Ixobrychus exilis). Only one recorded, this on May 19.

BLUE-WINGED TEAL (Anas discors). First recorded March 14 (three) and recorded regularly thereafter until May 22. On April 3, forty-two were counted. Last counts were May 12 (twelve), May 15 (three) and May 22 (eight). They paired off in late April but did not nest; however, they have nested elsewhere in middle Tennessee in recent years.

SHOVELLER (Spatula clypeata). Fifteen were present on March 24 and from one to three on April 1, 3, 8 and 17.

WOOD DUCK (Aix sponsa). Four were found on April 8.

KING RAIL (Rallus elegans). One heard in the marsh by Ganier on May 12. In previous years, one or two pairs nested in the bottoms.

SORA RAIL (Porzana carolina). Observed March 27, May 21 and May 22; one on each occasion. A large marsh north of 9th Ave. and recently drained, formerly yielded Soras regularly each spring.

SEMIPALMATED PLOVER (Charadrius hiaticula semipalmatus). First recorded April 29 (seven birds), then May 3 (ten), May 9 (thirty), May 12 (twelve), May 15 (eight) and May 22 (thirty-five). They fed in compact flocks, and when flushed circled widely before re-alighting.

KILLDEER (Charadrius vociferus). Several pair, which nest in these bottoms, were seen on each visit.

AMERICAN GOLDEN PLOVER (Pluvialis dominica). This is the first year we have been able to record this species in middle Tennessee altho the Memphis area has been reporting it in numbers for some years. Our first birds were seen by Weise on March 24 and the following day he and Ganier counted ten or more during a light rain. On April 3, the latter counted 17 at eight a.m. but they were flushed by a plane and could not be found again by the group which had come to observe them. These birds, or others which had come in later, were also seen as follows: April 1 (twenty-five), April 6 (seven), April 11 (eight), and the last (two) on April 17 by Castles and Goodpasture. Their favorite feeding place was a burned over area at the end of the airstrip; water pools appeared to hold no attraction for them.

WILSON'S SNIPE (Capella gallinago delicata). Common thru March and April. The last dates recorded were May 3 (six) and May 19 (one).

SPOTTED SANDPIPER (Actitis macularia). First seen April 22 (five) and one or two regularly thereafter until May 22 when three pair were found. These were all believed to be transient birds.

SOLITARY SANDPIPER (Tringa solitaria). First recorded March 26 and a few regularly for some weeks. Last dates, May 15 (one) and May 22 (two).

WILLET (Catoptrophorus semipalmatus). A Willet, observed by Weise April 25 with Yellowlegs, is presumed to have been the western form, **inornatus.**

GREATER YELLOWLEGS (Totanus melanoleucus). First recorded March 14, with sizable flocks on April 8, 11 and 22 but on most dates only one or two. Last seen May 9 and 15, one each.

LESSER YELLOWLEGS (Totanus flavipes). First seen March 24 and from then until mid-May, from ten to thirty could be recorded daily. Last dates recorded were May 19 (ten) and May 22 (two).

PECTORAL SANDPIPER (Erolia melanotos). First observed March 14 and found in considerable numbers until April 8.

WHITE-RUMPED SANDPIPER (Erolia fuscicollis). Two or more were observed feeding with smaller sandpipers on May 14, 15 and 22. They closely resemble small Pectorals but when flushed the white rump shows plainly.

LEAST SANDPIPER (Erolia minutilla). First arrived April 29 (four) and shortly after became common, keeping usually in small compact flocks and feeding in shallow pools and flooded short grass. Last observations were of thirty-five on May 15 and eleven on May 22.

RED-BACKED SANDPIPER (Erolia alpina). A spring-plumaged individual was found by Ganier, on May 12, at edge of a small lagoon and in company with a flock of a dozen Semipalmated Plovers. It permitted observation at 75 feet and its reddish back and black belly clearly distinguish it. This is the first Middle Tennessee record for this rare species.

LONG-BILLED DOWITCHER (Limnodromus griseus). Seven on April 29 and one on May 3 were reported by Weise.

SEMIPALMATED SANDPIPER (Ereunetes pusillus). First recorded April 22 and thereafter a few could be found associated with the slightly smaller and browner Least Sandpiper. Last recorded on May 15, 19 and 22.

WILSON'S PHALAROPE (Steganopus tricolor). One reported by Weise on May 3 is the first local record.

RING-BILLED GULL (Larus delawarensis). On March 25, a flock of twenty were feeding on and above a temporary pond near the river.

SHORT-EARED OWL (Asio flammeus). While not a water bird yet it was attracted by the aquatic conditions which made crayfish readily obtainable. Many disgorged pellets of crayfish shells were found along the ditches where they were observed, and meadow mice were common in the grass lands. One or more spent the winter here and there was an influx on April 5 when twenty-five were counted by White. Last recorded April 17.

2112 WOODLAWN DRIVE, NASHVILLE, TENN.

Plans For Hawk Watching-1954

By FRED W. BEHREND

The present is an opportune time to commence making plans for hawk migration study, which the members of the Society assembled at the annual meeting decided to continue this Fall. Before long the first of migratory hawks which have been breeding in northern regions, and their young of the year, will be heading south. Small numbers of Sharp-shinned, Cooper's, Red-tailed, Broad-winged, and Marsh hawks, as well as Osprey and Bald Eagle, will reach southern territories as early as the last third of August. With the advent of Fall weather, migration will gain momentum and from around the middle of September to the early part of October the migration of Broad-wings with its wondrous display of mass flights in large and small flocks attains its peak. The changes of witnessing such flights depend greatly on the WHEN, WHERE, and HOW of observation.

It is recommended that the period of September 18 to October 3 be concentrated on to look for Broad-winged flights. Most observers will be dependent on the weekends to go afield, but there may be opportunities for some to spend some time, even if only a few hours, on week days in between on this interesting activity.

Experience of the past few years has proven that there is not only substantial migration of Broad-winged and other hawks along the ridges on both the West and East of the Tennessee Valley, but over the Valley itself. East Tennessee observers have a vast mountainous area to work on, including that of adjoining southwestern Virginia and western North Carolina. Specific suggestions of observation points for members of the various chapters follow:

Bristol: Hayters Knob fire tower on Clinch Mt., north of Abingdon, Va.; Mendota community northwest of Bristol, affording view of Clinch Mt. and Walker Mt.; Mt. Rogers and Whitetop; Feathercamp fire tower on Iron Mt. northeast of Damascus; Damascus community at break between Iron and Holston Mts.

Kingsport: Mendota and Big Knob fire towers on Clinch Mt. northeast of Kingsport; High Knob Lookout on Powell Mt. south of Norton, Va.; Jasper Cliff lookout on Powell Mt. north of Duffield, Va., near U. S. Highway 23; car window observations along east and west side of Clinch Mt., Powell Mt., Wallen Ridge, and Bays Mt.; Bays Mt. fire tower.

Elizabethton: McQueen Knob and Holston High Knob fire towers on Holston Mt.; Iron Mt. from near Damascus to Hampton; Shady Valley and Cross Mt.; Buck Ridge tower on Stone Mt. near Elk Mills; Kettlefoot fire tower on Doe Mt. southwest of Mountain City; Whiterock fire tower above Dennis Cove; Gap between Snake Mt. and Bald of Rich Mt., approachable from Trade, N. C., 11 miles south of Mountain City; Grandfather Mt.; Blue Ridge Parkway south and southwest of Grandfather Mt.; Beech Mt. (Pinnacle or Field) above Banner Elk, N. C.;

Hump Mt.; Unaka Mt. and Beauty Spot; car window observations at end of Cherokee Mt. (Cherokee Knob) from Erwin-Jonesboro Highway No. 81, also of Buffalo and Cherokee Mts. along Garber Road out of Johnson City, further of Rich Mt. and Clarks Creek Mt. from Bumpass Cove Road south of Embreeville; Big Bald Mt.

Greeneville: Powell Mt. fire tower north of Kyles Ford; Clinch Mt. fire tower north of Rogersville; Wallen Ridge and Powell Mt.; Clinch Mt. westward to Bean Station; south end of Bays Mt. to Bulls Gap; Cold Spring Mt. (Camp Creek Bald fire tower); Rich Mt. (fire tower); Meadow Creek (fire tower) east of Newport; Hall Knob (fire tower) on Stone Mt. southeast of Newport; English Mt. tower southwest of Newport; Round Mt. (fire tower) and Max Patch southeast of Del Rio; car window observation along Clarks Creek Mt. southwestward from junction of John Sevier Highway No. 107 with Highway No. 81.

Knoxville: Clinch Mt. from Bean Station southwestward to Luttrell; House Mt. southwest of end of Clinch Mt. and McAnnally Ridge southeast of House Mt. to Fulton Gap; Cumberland Mts. at any point along the line from Cumberland Gap to LaFollette; Walden Ridge (Cumberland Escarpment) towers 3 miles northeast of Harriman and 2 miles west of Rockwood; any of the numerous secondary ridges northeast, north, and northwest of Knoxville. Brown Mt. southeast-south of Knoxville, cut by Chapman Highway; Bays Mt. along Knox-Sevier Counties line, southeast of Knoxville, cut by Shooks Gap; Great Smoky Mts. at Charlie's Bunion, 4 miles east of Newfound Gap, at Newfound Gap, Indian Gap, Collins Gap, overlook between Collins Gap and Forney Ridge Parking Area, and Forney Ridge Parking Area; Chilhowie Mts. north and west of the Smokies along the line of Sevierville-Walland-Tallassee-Tellico Plains.

Chattanooga: Cumberland Mts. northwest of Chattanooga; Unicoi Mts. northeast of Chattanooga; Armuchee Ridges southeast of Chattanooga.

Nashville and Lebanon: Cumberland Plateau and Highland Rim.

Memphis: Mississippi River vicinity north of Memphis; Crowleys Ridge, west of St. Francis River, north of Helena, Arkansas.

It is very probable that many large flights of Broad-wings are overlooked by not detecting them at the tremendous height at which they are flying, especially on days when the wind is moderate and they make use of the thermals in the progress of their flight. Observers are therefore advised not only to watch the level of the ridges but to take more than an occasional glance way up into the sky. While the Broad-wings soar or flap low in the morning before the thermals develop, they are to be looked for at great height particularly during the noon hours. Again in the late afternoon they may be seen at lower levels prior to searching for a roost.

The writer will be glad to answer any questions in regard to the above. For details of previous observations see the December issues of THE MIGRANT for the years 1950 thru 1953.

607 RANGE ST., ELIZABETHTON, TENN.

The 1954 Spring Field Days

By T.O.S. MEMBERS

For the second year in succession a new record has been established for the total number of species seen in the Spring Field Days over the State. This year the total list numbers 197 species, compared to last year's record of 185. The increase was partly caused by the high number of twelve localities which reported. Most of the new species added, that is that were seen this year but not last, are water birds.

The birds reported from each locality are listed in the "Tabular Record" which follows. The localities are arranged according to the date of the Field Day. The general information from each locality is in the paragraphs below, and these paragraphs also contain additional information on the birds marked with an asterisk (*). The abbreviations used are: "a"—abundant, "c"—common, "fc"—fairly common.

LEBANON—Three and a half miles east of Lebanon, Clyde Sellars Farm. April 17, 1954. Weather clear, windy. Lebanon Bird Club.

JOHNSONVILLE—Within a circle of 7½ mile radius centered at Johnsonville, extending westward to include the city of Camden and south and eastward to include Duck River bottom in the Tennessee National Wildlife Refuge. April 24, 1954, 8:00 a.m. to 5:30 p.m. Temperature 59° to 80°, partly cloudy. Four observers in one party; Eugene Cypert, compiler.

CHATTANOOGA—Same area as the last Christmas Census with the exception of one observation, that of the Ruffed Grouse on Signal Mountain. April 25, 1954. Weather clear, no wind in forenoon. Nine observers; Adele H. West, compiler. Species seen on the previous day but not on the field day were Red-tailed Hawk, Turkey Vulture, Kingfisher, Kingbird, Blue Grosbeak, and Blue-headed Vireo.

MEMPHIS—Penal Farm, Overton and Riverside Parks, and the Lakeview, Miss.-Tenn., area, including Sanders Field. May 1, 1954. Five observers; George Peyton, Jr., compiler. Peyton identified the Northern Waterthrush and Song Sparrow, and with Jack Hays, the Short-billed Marsh Wren. The first two species and the Sapsucker and Blue-headed Vireo were recorded in Mississippi. The total number of Bobolinks reported was 1045, an estimated 1000 from the Penal Farm.

The Memphis Chapter held its Field Day on May 2, but rain, with frequent heavy downpours, interrupted the observations. Despite that a total of 90 species were recorded including Snowy Egret, 1; Philadelphia Vireo, 1; and White-crowned Sparrow, 15.

ELIZABETHTON—Usual area in Carter Co. May 1, 1954. Fair and hot. Fourteen observers.

KNOXVILLE—Usual area centered on Sharp's Gap, in Knox Co. May 2, 1954. 5:30 a.m. to 8:00 p.m. Weather clear and warm. About 20 observers in 7 parties; J. T. Tanner, compiler. The Red-breasted Nuthatch was observed by G. E. Albert.

GREENEVILLE—Usual area in vicinity of Greeneville, plus Nolichuckey River and Camp Creek Bald. May 2, 1954, 5:00 a.m. to 5:30 p.m.

Weather clear, temperature 58° to 80°, very slight wind. 13 observers; Ruth Reed Nevius, compiler. The Tree Swallows were identified by Mrs. Clemens, Wayne Messer, and Herbert Whitt; the Blue Grosbeaks were identified by Mr. and Mrs. Alfred Irvine, and were the first seen in this county. The Yellow-crowned Night Herons are nesting.

KINGSPORT—Area within a 7 mile radius of Kingsport including Bay's Mountain, Fort Patrick Henry Lake, a private fish hatchery, and the Ridgefield golf course. May 2, 1954, 5:30 a.m. to 6:30 p.m. Weather clear, temperature 68° to 80°, very little wind. 10 observers in 7 parties, one observer covering by boat the length of the Holston between Patrick Henry Dam and Boone Dam; Ann Harney Switzer, compiler. On the day previous to the field day Thomas Finucane saw 1 Cooper's Hawk, 1 Long-billed Marsh Wren, 1 Veery, and 2 Louisiana Waterthrushes, and on May 3, Black-polled Warblers and Whip-poor-wills were recorded; none of these were seen on the field day.

ROAN MOUNTAIN—From Roan Mt. Town to Roan High Bluff and Grassy Bald, elevations 2575' to 6285'. May 2, 1954, 3:30 a.m. to 6:30 p.m.. Overcast to partly cloudy, thundershowers late in day, temperature 55° to 64°, wind slight to moderate. Fred W. Behrend.

REELFOOT—Reelfoot Lake was covered by two parties, Howard and Evelyn Barbig on May 8 and Eugene Cypert with 5 other observers on May 9. Because some of the territory covered was the same, the two counts were combined by recording in the table the highest number reported by either party. The Barbigs recorded 118 species and Cypert's party recorded 100 species; the combined total is 131 species. Cypert's party extended their search to Ridgeley. The number of Little Blue Herons reported was 2000, by Cypert, and of Red-winged Blackbirds was an estimated 1000, by Barbig.

STANDING STONE—Standing Stone State Park, near Livingston, Tenn. May 8-9, 1954. Weather clear to rainy, cool. The number of observers varied from a few at any one time to a maximum of about 70 which was the total number attending the T.O.S. Annual Meeting. All species were reported from within the State Park except for the following, most observed at Legion Lake near Livingston: Blue-winged Teal, Coot, Lesser Yellowlegs, Forster's Tern, Purple Martin, Long-billed Marsh Wren, Meadowlark, Red-winged Blackbird, Savannah Sparrow, and Grasshopper Sparrow. Nests were found for the following species: Hairy Woodpecker, Phoebe, Carolina Wren, Brown Thrasher, Wood Thrush, Bluebird, Yellow Warbler, Redstart, Scarlet Tanager, and Summer Tanager. Red-winged Blackbird nests were located at Legion Lake. The Northern Waterthrush was reported separately by Mrs. E. E. Overton and Mrs. E. W. Goodpasture.

NASHVILLE—Cumberland River bottoms in Nashville, Radnor Lake, Goodpasture Farm. May 15, 1954, 5 a.m. to 6 p.m. Weather fair, ground wet. Eight observers; A. F. Ganier, compiler. 50 of the Black-crowned Night Herons were at a rookery. The Florida Gallinule was brought to Mrs. F. C. Laskey who banded and released it.

TABULAR RECORD OF SPRING FIELD DAYS

	Lebanon April 17	Johnsonville April 24	Chattanooga April 25	Memphis May 1	Elizabethton May 1	Knoxville May 2	Greeneville May 2	Kingsport May 2	Roan Mountain May 2	Reelfoot May 8-9	Standing Stone May 8-9	Nashville May 15
Loon	------	------	------	------	1	------	------	------	------	------	------	1
Pied-billed Grebe	------	1	------	3	------	------	------	4	------	5	------	2
Double-crested Cormorant	------	50	------	------	------	------	------	------	------	28	------	------
Anhinga	------	2	------	------	------	------	------	------	------	4	------	------
Great Blue Heron	------	500	------	1	------	2	1	1	------	63	------	1
American Egret	------	100	1	26	------	------	------	------	------	75	------	------
Snowy Egret	------	------	------	------	------	------	------	------	------	17	------	------
Little Blue Heron	------	------	------	4	1	------	------	------	------	*	------	------
Green Heron	1	------	2	1	1	14	5	1	------	2	1	2
Black-crowned Night Heron	------	------	1	------	------	2	------	------	------	1	------	*52
Yellow-crowned Night Heron	------	------	------	------	------	------	*2	------	------	------	------	14
American Bittern	------	------	1	------	------	------	------	------	------	------	------	1
Least Bittern	------	------	------	------	------	2	------	------	------	2	------	------
Canada Goose	------	------	------	------	2	------	------	------	------	------	------	------
Mallard	2	------	------	------	------	------	------	------	------	------	------	------
Gadwall	------	------	------	------	------	------	------	------	------	7	------	------
Blue-winged Teal	6	6	8	5	------	4	------	6	------	15	*5	12
Baldpate	------	------	------	------	------	------	------	1	------	------	------	3
Wood Duck	2	------	------	------	3	3	------	------	------	14	------	1
Lesser Scaup Duck	------	------	------	------	10	------	------	2	------	------	------	35
Bufflehead	------	------	------	------	------	------	------	3	------	------	------	------
American Merganser	------	------	------	------	1	------	------	------	------	------	------	------
Turkey Vulture	------	3	------	2	1	2	26	65	------	8	2	4
Black Vulture	5	1	2	8	------	------	6	51	------	1	2	2
Mississippi Kite	------	------	------	1	------	------	------	------	------	------	------	------
Cooper's Hawk	------	------	------	------	------	1	1	------	1	------	2	1
Red-tailed Hawk	------	------	------	1	------	------	4	1	5	------	4	1
Red-shouldered Hawk	------	1	------	------	------	------	------	------	------	2	------	2
Broad-winged Hawk	------	------	------	------	------	------	------	------	------	------	2	1
Marsh Hawk	1	------	------	------	------	3	------	------	------	------	1	------
Osprey	------	------	------	------	4	1	------	------	------	------	------	------
Duck Hawk	------	------	------	------	------	------	------	------	------	1	------	------
Sparrow Hawk	1	------	5	1	10	9	3	3	------	1	------	2
Ruffed Grouse	------	------	2	------	1	------	1	------	3	------	------	------
Bob-white	1	4	6	4	21	40	7	13	1	6	2	5

King Rail						1						
Sora Rail						1				3		
Purple Gallinule										3		
Florida Gallinule										18		*1
Coot		12								150	*2	3
Semipalmated Plover								1		12		8
Killdeer	1	6	2	24	22	28	14	20		12		6
Wilson's Snipe			3		2	2	4					
Upland Plover				1								
Spotted Sandpiper		2	2		23	40	3	7		1	3	1
Solitary Sandpiper			1	9	8	6	1	3		2	2	1
Greater Yellow-legs					2			1				1
Lesser Yellow-legs					5			1		2	*2	14
Pectoral Sandpiper			1	1						4		
White-rumped Sandpiper												2
Least Sandpiper				6	6					12		35
Semipalmated Sandpiper								6				3
Herring Gull					1	1						
Ring-billed Gull				1	1	1						
Forster's Tern											*2	
Common Tern					1							
Black Tern										120		
Mourning Dove	14	25	55	43	25	90	166	46		25	fc	c
Yellow-billed Cuckoo		1		3	5	14	13	1		1	6	3
Black-billed Cuckoo			2		2		2	2		1	2	
Barn Owl							1					
Screech Owl			1		2	1	1	2			1	1
Horned Owl							1			1		
Barred Owl		1								1	1	1
Chucks'-Will's-Widow			3			11	6	2				
Whip-poor-will					35	1			6	1	2	2
Nighthawk					20	11	15	9		6	1	10
Chimney Swift	6	30	12	16	45	130	91	24	3	15	fc	c
Ruby-throated Hummingbird		3		7	5	14	2	2		5	2	
Belted Kingfisher		1		1	5	6	1	4		8	1	2
Flicker	3	1	6	2	28	39	25	23	3	2	3	3
Pileated Woodpecker	2	2	3	1	4	11	9	2		2	4	1
Red-bellied Woodpecker	4	10	6	3		13	4	1		4	2	4
Red-headed Woodpecker	1	2	8	3		9	16	2		4	1	2
Yellow-bellied Sapsucker				*1								

	Lebanon April 17	Johnsonville April 24	Chattanooga April 25	Memphis May 1	Elizabethton May 1	Knoxville May 2	Greeneville May 2	Kingsport May 2	Roan Mountain May 2	Reelfoot May 8-9	Standing Stone May 8-9	Nashville May 15
Hairy Woodpecker	1	1	1	2	1	1	1	1	1	1	*2	—
Downy Woodpecker	2	2	2	6	8	10	6	1	1	5	4	3
Eastern Kingbird	2	2	—	26	14	33	22	6	—	20	1	11
Crested Flycatcher	1	6	3	15	—	40	42	11	—	6	fc	5
Phoebe	3	1	4	7	24	44	35	15	9	4	*c	5
Acadian Flycatcher	—	—	—	5	—	10	—	4	4	2	fc	4
Least Flycatcher	—	—	—	—	2	—	—	—	32	—	—	—
Wood Pewee	—	—	—	10	10	16	41	13	1	10	fc	c
Olive-sided Flycatcher	—	—	—	—	—	—	—	1	—	—	—	—
Horned Lark	—	—	—	3	3	2	4	4	3	—	—	2
Tree Swallow	16	—	—	10	—	—	*4	—	—	25	1	—
Bank Swallow	—	—	—	2	3	—	—	5	—	6	2	—
Rough-winged Swallow	—	6	4	3	27	44	19	7	2	80	fc	5
Barn Swallow	4	1	2	11	—	15	64	6	1	20	1	2
Cliff Swallow	—	1	50	—	30	—	—	14	—	20	2	—
Purple Martin	—	7	10	16	13	60	40	—	—	25	*6	—
Blue Jay	10	5	21	18	56	50	78	27	15	40	fc	8
Raven	—	—	—	—	—	—	—	—	5	—	—	—
Crow	20	10	28	16	106	140	43	38	5	35	fc	6
Fish Crow	—	—	—	5	—	—	—	—	—	4	—	—
Carolina Chickadee	—	5	6	36	28	70	25	13	10	11	fc	7
Tufted Titmouse	3	5	18	18	31	58	33	22	32	8	c	8
White-breasted Nuthatch	—	1	10	3	—	4	—	2	1	2	fc	—
Red-breasted Nuthatch	—	—	—	—	—	*1	—	—	15	—	—	—
Brown Creeper	—	—	—	—	—	—	—	2	—	—	—	—
House Wren	—	—	—	—	1	1	7	15	—	—	—	—
Winter Wren	—	—	—	—	—	—	—	—	13	—	—	—
Bewick's Wren	6	1	3	—	5	12	4	2	—	2	—	6
Carolina Wren	6	5	9	12	31	85	41	20	4	8	*fc	c
Long-billed Marsh Wren	—	—	—	1	—	—	—	—	—	2	*1	1
Short-billed Marsh Wren	—	—	—	*1	—	—	1	—	—	—	—	—
Mockingbird	18	2	22	13	28	100	115	35	—	12	—	c
Catbird	—	2	2	4	54	29	62	27	26	18	fc	c
Brown Thrasher	8	1	14	4	28	80	64	40	—	5	*fc	4
Robin	4	6	17	11	91	95	104	56	50	30	—	c

Wood Thrush		2	21	21	39	93	38	50	27	5	*c	c
Hermit Thrush							2					
Olive-backed Thrush			1	5		27	1	2		6	fc	5
Grey-cheeked Thrush		2		1						6	1	1
Veery				2		4			14	3		
Eastern Bluebird	11	25	18	2	30	110	74	17	3	100	*fc	fc
Blue-gray Gnatcatcher	3	5	10	14	9	41	35	7		100	c	5
Golden-crowned Kinglet							1		31			
Ruby-crowned Kinglet			1			2	1		1			
Cedar Waxwing			11	15	3	100		50		15		35
Loggerhead Shrike			5	13		21	2			2		2
Starling	6	10	19	149	122	130	200	c	4	25	1	c
White-eyed Vireo		20	8	12	17	45	32	12		30	c	5
Yellow-throated Vireo		4	5	1	3	6	1	5		5	fc	3
Blue-headed Vireo				*1	2		2		5	1		2
Red-eyed Vireo		8	15	29	35	95	22	22	24	24	a	c
Philadelphia Vireo										1		
Warbling Vireo	3	12		16		4	4	3		12		fc
Black-and-white Warbler			9	8	6	15	10	7	9	1	fc	2
Prothonotary Warbler		6	1	28		5	1			25		8
Swainson's Warbler				2								
Worm-eating Warbler					3			4			fc	
Golden-winged Warbler				1					7			
Blue-winged Warbler							1					2
Tennessee Warbler			1	46		9		1		95	fc	c
Nashville Warbler		1		11	1					7		1
Parula Warbler				8	2	1		4	2	14	fc	1
Yellow Warbler		10	4	2	69	70	22	25	6	19	*fc	c
Magnolia Warbler				12	2	7	2			3	4	
Cape May Warbler			4			14		5			8	2
Black-throated Blue Warbler					4		12	1	24			
Myrtle Warbler	1	10	32	19	18	50	9	15		70	c	2
Black-throated Green Warbler		1	1	18	2	12	2	3	4	6	5	1
Cerulean Warbler					1	5				1	fc	1
Blackburnian Warbler			1	1		2		1		3	fc	1
Yellow-throated Warbler		1	3	3		2				4	2	2

	Lebanon April 17	Johnsonville April 24	Chattanooga April 25	Memphis May 1	Elizabethton May 1	Knoxville May 2	Greeneville May 2	Kingsport May 2	Roan Mountain May 2	Reelfoot May 8-9	Standing Stone May 8-9	Nashville May 15
Chestnut-sided Warbler	——	——	1	6	2	10	14	1	54	——	8	——
Bay-breasted Warbler	——	——	——	12	——	1	——	——	——	——	fc	6
Black-poll Warbler	——	1	8	12	1	13	3	——	——	178	c	c
Pine Warbler	——	——	3	——	——	11	1	1	——	——	——	2
Prairie Warbler	——	20	7	——	4	27	1	3	——	——	fc	8
Palm Warbler	——	50	14	1	——	1	1	——	——	65	1	2
Ovenbird	——	——	9	5	7	18	8	——	27	4	fc	——
Northern Water-thrush	——	——	——	*1	——	——	——	——	——	1	*1	——
Louisiana Water-thrush	——	——	1	5	1	6	9	——	6	2	fc	6
Kentucky Warbler	——	——	10	5	6	18	——	8	3	5	fc	8
Yellow-throat	2	100	11	53	47	80	37	32	9	30	8	c
Yellow-breasted Chat	——	20	10	18	37	72	31	29	2	15	c	c
Hooded Warbler	——	——	4	2	4	14	4	3	5	1	fc	2
Wilson's Warbler	1	——	——	——	——	——	——	——	——	——	——	——
Canada Warbler	——	——	——	1	——	——	——	——	26	——	——	——
Redstart	——	1	3	8	11	14	7	2	——	10	*4	1
English Sparrow	12	20	6	24	60	40	150	c	——	300	1	fc
Bobolink	——	——	——	*	——	16	20	6	——	——	——	——
Eastern Meadowlark	16	12	30	42	45	120	95	57	4	6	*1	c
Red-winged Blackbird	4	200	26	262	25	170	100	41	——	*	*20	fc
Orchard Oriole	2	10	12	34	6	48	22	7	——	2	——	6
Baltimore Oriole	1	——	1	47	1	2	3	5	——	8	4	3
Rusty Blackbird	——	——	——	——	1	——	——	——	——	——	——	——
Purple Grackle	c	50	5	64	100	120	150	50	——	200	1	c
Cowbird	——	4	25	39	4	55	9	26	1	50	fc	4
Scarlet Tanager	——	1	3	3	5	19	12	3	9	2	*fc	4
Summer Tanager	1	——	9	12	5	42	38	14	——	7	*c	c
Cardinal	c	30	35	56	74	160	63	76	8	75	c	c
Rose-breasted Grosbeak	——	1	——	18	4	20	5	2	16	4	fc	1
Blue Grosbeak	——	1	——	——	——	1	*5	——	——	——	——	——
Indigo Bunting	——	2	5	73	20	110	66	29	1	125	c	c
Painted Bunting	——	——	——	2	——	——	——	——	——	——	——	——
Dickcissel	——	——	——	122	——	——	——	——	——	28	——	1
Purple Finch	——	——	——	——	1	——	——	——	——	——	——	——
Pine Siskin	——	——	——	——	——	——	——	——	4	——	——	——

Goldfinch	1	10	100	6	33	150	114	41	26	7	c	c
Red-eyed Towhee	8	4	20	5	39	100	51	50	35	1	4	6
Savannah Sparrow	8	20	8	51	......	4	......	2	......	4	*1	3
Grasshopper Sparrow	2	......	12	1	17	60	16	16	......	......	*1	1
LeConte's Sparrow	......	......	......	......	......	......	......	......	......	1	......	......
Vesper Sparrow	......	......	......	......	1	......	......	......	......	......	......	......
Bachman's Sparrow	......	......	1	......	3	7	......	2	......	......	2	1
Slate-colored Junco	......	......	......	1	2	......	8	......	76	1	......	......
Chipping Sparrow	9	2	10	......	22	65	34	17	6	......	c	c
Field Sparrow	15	6	13	......	47	80	47	38	10	12	fc	c
White-crowned Sparrow	8	......	......	......	13	1	28	2	......	......	......	......
White-throated Sparrow	......	50	26	8	10	52	31	22	1	3	10	fc
Lincoln's Sparrow	......	......	......	......	......	......	......	......	......	7	......	......
Swamp Sparrow	......	3	2	12	......	1	......	......	......	1	1	1
Song Sparrow	......	......	5	*1	77	140	52	46	30	2	......	......
TOTAL SPECIES	52	82	95	117	109	120	108	109	63	131	104	121

The Round Table

GOLDEN PLOVER RECORDED FROM THE GREAT SMOKY MOUNTAINS NATIONAL PARK — Two Golden Plover (**Pluvialis dominica**), one dead and one incapable of flight and dying later, were found by Joe Manley, Henry Lix, and me on October 29, 1953, beside the highway at about 4000' altitude on the Tennessee side of the Great Smoky Mountains National Park. The preceding night brought the first snowfall of the season to the upper elevations of the park, with a depth of three to four inches at 5000 feet. The rain which had preceded the snow brought the first change in the long dry spell which had extended over a period of several weeks' time. There was a considerable amount of fog enveloping the snow-clad mountains when the birds were found. Several Killdeer, one Blue-winged Teal, one Scaup, and one duck which appeared to be a Ring-neck, were observed by us at about the same time and within two miles of the place where the plovers were discovered. The latter, preserved in alcohol in the park collection, appear to be the first Golden Plover records for East Tennessee as well as for the Great Smoky Mountains National Park.—ARTHUR STUPKA, National Park Service, Gatlinburg, Tenn.

TWO ARKANSAS KINGBIRDS NEAR NASHVILLE.—On October 8, 1953, two Arkansas Kingbirds (**Tyrannus verticalis**) perched on a fence and utility wires and fed from the air, moving southwestward down Bedford Creek Valley toward the South Harpeth. This was about 4 o'clock in the afternoon.

A black tail fanned in flight on birds not otherwise black was the first thing to attract attention. They perched then on wires facing us. The yellow of the lower breast and belly was in good light and very distinctive. I followed the birds for almost 10 minutes as they moved deliberately along the wires seeming to feed from the air. One would sit still for an appreciable time so that careful observation with binoculars at about 15 feet was possible. In addition to the black tail and yellow underparts the gray color of the throat and head and a darkish line through the eye were clearly visible. While on the outside rectrices was not noticeable, but Peterson says this is most often the case with birds in immature plumage. These birds were silent. Their flight was indeed "like a Kingbird." My only other experience with this species was a single observation in Louisiana.

One previous record of this species for Tennessee was published in THE MIGRANT for June 1947 by Tyler and Lyle who reported a pair at Shady Valley in East Tennessee on May 24, 1947. Numerous casual records of Arkansas Kingbirds east of the Mississippi River are established, but they are more often for the East Coast region than for this Middle Eastern section.—KATHERINE A. GOODPASTURE, 408 Fairfax Ave., Nashville, Tennessee.

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WINTER OBSERVATIONS IN THE CHATTANOOGA AREA—Since my personal knowledge about bird distribution is based on experiences in Upper East Tennessee, it came as a surprise to find that several species that I looked upon as absent in the winter months are apparently winter residents in the Chattanooga area.

GREAT BLUE HERON—2 at mud flats of Long Savannah Creek, backwater of Chickamauga Reservoir, Feb. 7, 1954.

BLACK-CROWNED NIGHT HERON—Present at least from March 23 to April 25, 1954, roosting every night in a magnolia tree about a quarter-mile from the river and downtown Chattanooga; 4 birds in 1952, 1 in 1953 and 2 in 1954.

LEAST SANDPIPER—5 at Long Savannah Creek, Feb. 7, 1954.

WHIP-POOR-WILL—Reported by Mrs. Leon Cross on Signal Mt. about March 7, 1954.

PURPLE MARTIN—2 reported on Feb. 18, 1954, by G. C. Dykes who has a colony of about 60 pairs.

BLACK-AND-WHITE WARBLER—Reported as seen at feeding station eating suet during the week of Feb. 6 and continuing daily thru March. The identification was made by 7 persons, altho inexperienced, living in the neighborhood.

PINE WARBLER—Found nearly every week in the year.

VESPER SPARROW—Several records in November, January, March, and April.

CHIPPING SPARROW—Recorded once in December, 6 times in January. One flock of about 25 birds were seen regularly on my street during January 1954.—ADELE H. WEST, Chattanooga, Tenn.

Book Reviews

OUR WILDLIFE LEGACY. By Durward L. Allen. 422 p. 1954. Funk & Wagnalls Co., N. Y. $5.00.

"Up-to-date Conservation of Game and Fish" could be another title for this book. Its author has successfully explained the theory and practice of wildlife management.

The book is divided into three parts. The first describes some of the ecological principles underlying game and fish conservation and management. The second is an analysis of some of the practices, such as bag limits, predator control, and the introduction of foreign species. And the third and shortest part discusses politics, policy, and the philosophy behind them. The division is not sharp, because certain themes and ideas appear and reappear thru-out the book.

There is a wealth of detailed information in this book, presented in non-technical language but backed up by 68 pages of bibliography. Thus the book can serve two purposes: it can present a picture to the layman and conservationist of modern ideas and methods in wildlife management; and it can be used as an introduction, or a springboard, to the study of the principles and phenomena that are described.

The author writes with quiet humor and with feeling motivated both by pride in his profession of wildlife biologist and by the ideal of wise conservation.—JAMES T. TANNER.

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BIRD RECOGNITION, I. Sea-Birds and Waders. By James Fisher. 190 p. Illustr. Revised Edition, 1954. Penguin Books, Inc., 3300 Clipper Mill Road, Baltimore 11, Maryland. 85c.

Nothing succeeds like success, and one way to measure success in the book-world is by the rapidity with which an edition is exhausted. The first edition of this book, published in 1947, became so popular that it was soon out-of-print; this revised edition will be welcomed by many as again making this book available.

The purpose of the "Bird Recognition" series (4 volumes, 2 published) is to provide a compact manual describing the appearance and field marks, habits, range, and status of British birds. The first volume covers the sea birds, shore birds, and their relatives. The general plan is that each species is treated on two facing pages containing an illustration, the text material, a map of the British Isles showing distribution, and in ingenious chart to show the yearly activities of the species. The illustrations are attractive wash-drawings by "Fish-Hawk". The book also contains some introductory remarks, keys, a series of illustrations of flying birds, appendix, and index.

It is amazing how much information has been concentrated in this pocket-size book. American bird students will find this and its companion volumes probably the best and certainly the cheapest books to provide information on British birds.

"Bird Recognition, II", covering British birds of prey and water fowl, is also available; it was reviewed in THE MIGRANT for June 1952. JAMES T. TANNER.

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REPORT OF THE T.O.S. ANNUAL MEETING, 1954

On May 8-9, 1954, the Tennessee Ornithological Society held its annual meeting at Standing Stone State Park, Livingston, Tenn. About 70 members attended, most of them staying at the cabins in the park and eating at the restaurant. Field trips were the order of the day for most of the time; the observations are summarized in the report of Spring Field Days in this issue.

The business of the Society was transacted at a meeting of the directors on Saturday afternoon and of the members on that night. The reports of the Treasurer and Editor indicated that, because of the costs of printing THE MIGRANT have increased, expenses for the coming year will probably be more than the Society's income. Since there is a surplus in the treasury it was decided not to "budget" this year, but to keep careful accounting and at the 1955 meeting to decide what should be done at that time to insure sound finances.

Fred W. Behrend, Elizabethton, agreed to again coordinate the observations of fall hawk migration. A report was made by James T. Tanner on the activities of a committee that is planning for a new cover design for THE MIGRANT, and there was some discussion of the subject.

The dates of May 7 and 8 were set for the 1955 meeting, the place, to be west of Nashville, to be picked by a committee consisting of the president of the T.O.S. and three members of the Memphis Chapter.

The Society re-elected all of its officers: President, Mrs. Robert A. Monroe of Knoxville; Vice-President for West Tennessee, Miss Nelle Moore of Memphis; Vice-President for Middle Tennessee, Miss Jennie Riggs of Nashville; Vice-President for East Tennessee, Mr. E. M. West of Chattanooga; Secretary, Mrs. Robert Dunbar of Oak Ridge; Treasurer, Lawrence C. Kent of Memphis; Editor, James T. Tanner of Knoxville; Curator, Albert F. Ganier of Nashville; Director-at-Large for West Tennessee, Eugene Cypert of Paris; for Middle Tennessee, Mrs. Henry Waters of Lebanon; for East Tennessee, Ed Gift of Kingsport.

Saturday night a meeting was held in the lodge. After business, introductions, and short talks, the guest speaker, Dr. Harvey Lovell of Louisville, Ky., gave an illustrated talk on "The Habitat Niche of Nesting Birds."

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A NEW RACE OF THE YELLOW-BELLIED SAPSUCKER

By ALBERT F. GANIER

The eastern population of the Yellow-bellied Sapsucker, now recognized as **Sphyrapicus varius varius,** breeds from the southern provinces of Canada into the northern United States and southward thru the Appalachian Mountains to extreme northern Georgia. The Rocky Mountain district marks the western limit of its range where it merges with the Red-naped Sapsucker (**S. v. nuchalis**).

Dr. Oberholser (1938), in his book on Louisiana birds, attempted to divide the eastern birds into two races, assigning the name **atrothorax** to those birds which bred from Pennsylvania northward and retaining the name **varius** for those birds which bred south of that line. Wetmore (1939) examined the material then available and gave it as his opinion that the difference in size, which had been advanced by Oberholser, did not warrant the recognition of a new race. Considering the specimens examined and the insufficiency of Oberholser's treatment of the matter, Wetmore's stand was logical and proper.

Since that time, however, important new material has become available, including more breeding birds from the mountains of western North Carolina and specimens collected by the writer from the Unicoi mountains of Tennessee near the Georgia line in 1944 and 1946, as well as additional specimens from the northeastern limits of its breeding range.

Of the southern group of birds, taken in breeding season (June and July), in the mountains of Tennessee and North Carolina, the following measurements (in millimeters) are given:
6 males; wing 117.7 (115.5-120), tail 68.4 (63.5-70.6), bill 21.2 (19.5-22.5)
6 females; wing 118.5 (116-124), tail 71.9 (69.5-76), bill 21.9 (21.5-22.5)

Adding four North Carolina specimens taken in late May (27th and 28th), we have the following:
7 males; wing 118.1 (115.5-120.5), tail 68.8 (63.5-71)
9 females; wing 119.4 (116-124), tail 72.0 (69.5-76)

Adding seven more specimens, from southwestern Virginia a bit further northward, collected June 17 to July 5, we have the following:
11 males; wing 118.7 (115.5-122.5), tail 69.2 (63.5-71.5)
12 females; wing 119.2 (116-124), tail 70.2 (64-76)

These are all the available birds from the above mentioned localities within the date ranges given.

Corresponding measurements which have been taken from northern

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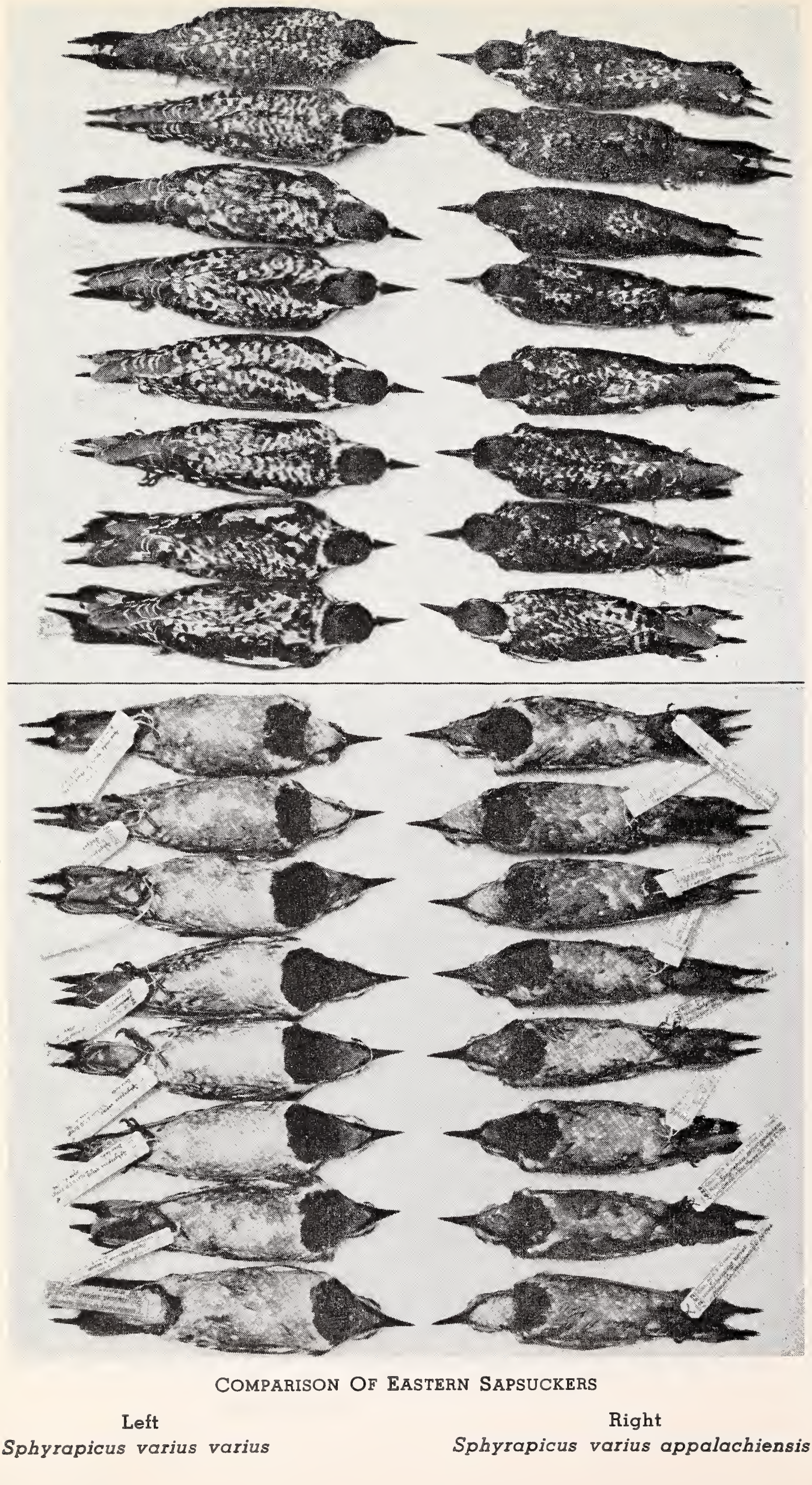

COMPARISON OF EASTERN SAPSUCKERS

Left
Sphyrapicus varius varius

Right
Sphyrapicus varius appalachiensis

males (Newfoundland 7, Nova Scotia 1, Minnesota 1, northern Michigan 2, Saskatchewan 1, and Alberta 2) are as follows:

14 males; wing 125.4 (122.5-131), tail 72.2 (67-78), bill 22.4 (19.5-24)
15 females; wing 125.0 as given by Wetmore (1939), mentioned further on.

For further comparison with the above, Wetmore (1939) gave the following wing averages: 5 southern males, 119.3 (117.5-122); 10 southern females, 121.4 (117.7-124.7); 15 northern males, 124.2 (121.1-126.2); 15 northern females, 125.0 (120.8-128.7). His southern birds were from North Carolina, Virginia, and West Virginia; his northern birds from Nova Scotia, Alberta, Athabasca and Mackenzie.

Oberholser (1938) gave an average for southern males of wing 120.8 and tail 70.8. For an unspecified number of northern males, wing 124.5 (121-128.5), tail 69.2 (61.5-77). His figures for southern birds were derived from the measurements of 6 males; 2 taken in Maryland (6-23-99 and 6-28-99), 1 in West Virginia (3-30-92) and 3 in North Carolina (3-18-30, 4-17-32 and 4-18-30). It will be noted that the first two were from near his line of intergradation and that the last four could have still been in process of migration. I have used none of these birds in compiling my figures. It is apparent that Oberholser did not have proper and sufficient material from the extreme southern range of the species to get a correct picture of the situation.

He proposed as a new subspecies the northernly breeding birds on a basis of larger size and gave them the name of **S. v. atrothorax,** from Lesson's name for the species. He retained the name **S. v. varius** of Linnaeus for the southern race, which was based on Catesby's (1737) painting, made 1722-1726, of a sapsucker presumably taken near Charleston, South Carolina, and in that case, a transient not on its breeding ground. It is my opinion that Oberholser erred in this proposed treatment; that the southern breeding birds should be set up as a new race on the basis of size and color, and that the name **varius** should continue to be applied to the northern breeding birds, most of which migrate into the South in large numbers for the winter and which form would be much the most likely to be passing or wintering at Charleston.

The Yellow-bellied Sapsucker is a rare breeding bird in the southern mountains. This was well illustrated by the results of three collecting trips of a week's duration each, in June of 1944, 1945, and 1946, in the Unicoi mountains of southeast Tennessee, when Alfred and Edward Clebsch and I were only able to list 6, 1 and 5 birds respectively during the three periods tho we especially looked for them (Ganier and Clebsch, 1946). Similar trips into the Great Smoky Mountains in earlier years found them to be even rarer there. The total number of sapsuckers breeding in this restricted mountain area is very small compared with the vast number which breed from Nova Scotia westward to the Rockies, and the chance of one of the southern race having fallen to the gun of Mr. Catesby is quite remote. It is true that this early ornithologist located himself for a time at a point up the Savannah River which he says was "300 miles from its source in the mountains—and engaged in several journeys with the Indians higher up the rivers." Yet anyone who has seen the miles of rhododendron and laurel jungle which block the way to the mountain-top breeding ground of the Sapsuckers could never picture Catesby as reaching there in those early years.

Dr. Witmer Stone (1929) calls attention to the fact that Dr. Mearns and Dr. Oberholser, after careful study decided to make Charleston the type locality for all of Catesby's birds. Going along with this assumption, we may say that the case of the Sapsucker is not comparable with that of the Flickers and Blue Jays, for which Bangs and Oberholser gave new names to the northern race when they separated them from those that had been depicted by Catesby. Those two birds are common breeding birds and permanent residents of the Charleston area, whereas the Sapsuckers are winter visitants only.

The breeding grounds of the southern race lie entirely outside of South Carolina, for the most part in the high mountain areas including those having a Canadian faunal aspect. This same area has produced a number of new subspecies, including the Southern Winter Wren, Southern Creeper, Mountain Vireo, Mississippi Song Sparrow, Carolina Junco, Cairn's Warbler, and races of Ovenbird and Swainson's Warbler that recently have been described. Like the Carolina Junco, it is probable that the southern race of the sapsucker indulges in little more than a "vertical" migration, into the valleys below. It has not been found among my twenty specimens from middle Tennessee; for these the average wing length is 124 mm.

The difference in length of wing of northern and extreme southern males is 125.4 less 117.7 equals 7.7 mm. or 6.5%. The same for females is 125.0 less 118.5 equals 6.5 mm. or 5.5%. This difference is sufficient to justify separation. Aside from size, there is also a distinct difference in color, the southern birds being nearly black dorsally while the northern ones display a great deal of white thus giving a white-spotted appearance to the back. This is clearly shown in the accompanying illustration. The white spots on the primaries are approximately one-third smaller, and therefore less in evidence, in the southern birds. Ventrally, the southern birds show more of the blackish markings on the sides, and this color difference is likewise shown in the lower view of specimens taken during their breeding season. The specimens are not unduly worn and are from those included in my measurements.

The Sapsuckers breeding in the northern portion of the range of this genus should in my opinion retain the name of **S. v. varius** of Linneaus as given in the A.O.U. Checklist (1931), and for their description we may continue to use that given by Ridgway (1914) or the more recent one published by Howell (1952).

I wish to propose the name **Sphyrapicus varius appalachiensis,** Appalachian Yellow-bellied Sapsucker, for the race which breeds in the southern Appalachians and in the Blue Ridge Mountains of North Carolina. For the type specimen I have selected my number 1426 collected by myself; a male taken June 21, 1946, at 4400 feet altitude in the Unicoi Mountains, Monroe County, Tennessee. This specimen has a wing measurement of 116.5 mm, tail 68.5 mm, bill 20 mm, and length (before skinning) of 202 mm. The plumage, in so far as it varies from the northern race (**S. v. varius**), has been described above. The breeding range of this southern race extends from the mountains of extreme northern Georgia, extreme eastern Tennessee, western North Carolina, north to include southwestern Virginia. The two races apparently intergrade at the latitude of West Virginia and western Maryland. Specimens examined from these areas (six June and July birds available) lack uniformity in size and show intergradation.

I would like to acknowledge the assistance of the U. S. National Museum, the Museum of Comparative Zoology, and the American Museum of Natural History for the loan or use of specimens; of Messrs. A. J. Duvall and Dean Amadon for laboratory assistance; and of Dr. Alexander Wetmore for looking over this report, the appended tabulations, and the specimens used.

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2112 WOODLAWN DR., NASHVILLE, TENN.
SEPTEMBER 1, 1954.

WARBLERS BREEDING AT BASIN SPRINGS, TENNESSEE

By KATHERINE A. GOODPASTURE

During five seasons, 1949-1953, 14 species of warblers were observed to breed in the small limited area of Basin Spring in northeastern Williamson County, Tennessee. The Columbia Quadrangle Map locates the area precisely on Bedford Creek in the drainage basin of the South Harpeth River. Geological maps describe it as part of the first Mississippian level or the escarpment rising from the Nashville Basin to the Highland Rim.

Basin Spring represents second growth hardwood forest rising to 800 or more feet from valley land largely in pasture. Easily tramped ravines between steep wooded hills, and brushy edges surrounding cleared land, are ecologically significant. Bedford Creek and Basin Spring Branch maintain a small stream habitat. The "essential" area brings under surveyance territory within visual and auditory range along about a two mile tramp. A large proportion of it is wooded, some having the character of ravines, and the edge is increased by small cleared patches in a narrow valley. Nests of two species were found nearby on the regular approach to the "essential" territory.

These breeding records are extracted from the larger record of 143 species of birds found from time to time within this limited location. Recognition of breeding status derives from an observation of incubation, of adults feeding nestlings, or of adults feeding fledgings recently out of the nest. These criteria are rigidly adhered to. Three instances of a young bird giving food-calls to alarmed parents that did not feed it are recognized as brood records only for species already established to be breeding. Eleven species were observed at their nests and three species are recognized as breeding on the basis of seeing adults feed young birds recently out of the nest. In all 26 active nests and 28 fledged broods are reported.

Following is a list of warblers breeding in the Basin Spring area 1949-53. Annotations summarize observations that establish breeding status and dates given are those of actual field observations. Recognized separate breeding records are indicated by small letters. When dates appear to overlap, complete records will show they are separated by annual dates or by a distance that establishes their integrity. Hyphenated dates indicate the earliest and latest seasonal records of the species in this particular area including spring dates for 1954.

BLACK AND WHITE WARBLER (**Mniotilta varia**). Mar. 28-Sept. 21. Two broods. Fledglings fed: (a) May 1, (b) May 24. Cowbird fed May 25. With incomplete coverage of their habitat 4 or 5 territories are recognized each year. After early vocal conspicuousness, Black and Whites are quiet until active with fledglings.

PROTHONOTARY WARBLER (**Protonotaria citrea**). Apr. 10-Aug. 5. Two broods. Nestlings: (a) May 26, (b) May 30, fledging June 3. These adjoining territories, at the mouth of Bedford Creek just outside the essential area, have been occupied at least 3 years. Territorial contentions may be quite fierce.

WORM-EATING WARBLER (**Helmitheros vermivorus.**) Apr. 11-Sept. 7. Three broods. Fledglings fed: (a) May 28, (b) May 31, (c) fledgling with parent, not fed, July 4. Three territories in 1953. If all ravines were covered, the breeding population of this species might be surprising.

BLUE-WINGED WARBLER (**Vermivora pinus**). Apr. 11-Aug. 15. Three broods. Incubating: (a) 6 eggs, May 7, nestlings, May 15 (Goodpasture, 1949); fledglings (b) May 27, (c) May 28. Four territories were recognized in 1951, 1952 and 1953. Species becomes inconspicuous in late June but may reappear briefly in August.

YELLOW WARBLER (**Dendroica petechia**). Apr. 11-Aug. 30. One brood. (a) Nestlings fed, June 3. This nest was in the South Harpeth Valley on the road approaching the "essential" area. Two territories were recognized in 1953. The population seems thin and toward the valley more than the hills.

CERULEAN WARBLER (**Dendroica cerulea**). Apr. 11-Aug. 5. Five broods. (a) building, May 7; incubating, May 21 and 27; fledglings fed May 28 (Goodpasture, 1951). Fledglings fed: (b) July 1, (c) July 8, (d) July 9, (e) July 28. Ceruleans regularly occupy three to four territories. Notable wave dates are noticed in the spring when on top of the hills "Ceruleans sing everywhere." A breeding census including the hill-tops might be rewarding.

YELLOW-THROATED WARBLER (**Dendroica dominica**). Mar. 21-Sept. 23. Four broods. (a) building in pine, Apr. 23, incubating May 7 and 15 (Goodpasture, 1949); (b) nestlings in pine June 3; fledglings fed: (c) June 30, (d) July 4. Two territories near each other are occupied each season. One pair regularly builds in the pine grove. Eye marks appear white. Earliest arrival for Nashville area recorded in South Harpeth Valley Mar. 21, 1953. (EG).

PRAIRIE WARBLER(**Dendroica discolor**). Apr. 11-Sept. 25. Three broods. (a) building, 25-30', May 31; fledglings fed: (b) July 8, (c) undated but located in Shale Hollow. Two regular territories.

LOUISIANA WATER-THRUSH (**Seiurus motacilla**). Mar. 13-Sept. 1. Five broods. (a) incubating 5 eggs, April 22, nestlings, May 3; nestlings: (b) 4, May 10, fledged on May 13; (c) 4, May 14; Fledgings fed: (d) May 22, (e) May 29. Three territories occupied each season. The Water-thrush returns ahead of all warblers. Throughout the nesting period spirited contentions take place often at dusk. A territorial line seems to bar passage up or down stream and great snapping of beaks and seemingly uncontrollable outbursts of song appear to be part of this behavior pattern.

KENTUCKY WARBLER (**Oporornis formosus**). Apr. 17-Sept. 25. Nine broods. Incubating: (a) 3, with 1 of Cowbird, May 11; (b) 4 with 1 of Cowbird, May 11; (c) 5, May 16; (d) 5, May 20; (e) 4, May 28; nestlings: (f) 3, well-feathered, May 29; fledglings fed: (g) June 3, (h)

June 19; (i) fledglings with adult, not fed, June 6. Five territories recognized. A census would reveal many more. Complete notes on five active nests reveal two of them successful, three unsuccessful. Three fledged broods represent additional successful nests. Two nests were parasitized by Cowbirds.

YELLOW-THROAT **(Geothlypis trichas).** Apr. 11-Oct. 6. Two nests: (a) building in tall pasture grass, May 21; 1 egg, May 25; incubating 3 warbler eggs and 1 of the Cowbird, May 27; (b) 2 recently hatched nestlings, 2 unhatched eggs, June 2. Usually three territories. Population very thin.

YELLOW-THROATED CHAT **(Icteria virens).** Apr. 20-Oct. 6. Seven broods. Nests: (a) building, just begun, May 16; 1 egg, May 20; 3 eggs, May 22; May 26, nest empty; (b) 3 eggs, June 3, 50 feet from nest (a); incubating: (c) 4, May 20, (d) 4, May 27; (e) 4, May 27; (f) 3, June 28; fledgling fed: (g) July 16. The Chat proved one of the most engaging species in the area. Edge with brushy cover offers good "Chat habitat." During the vocal season one seemed "never out of ear-shot of a Chat." From one spot 4 territories could be recognized by hearing as many males sing. On May 28, 1950, eleven territories were plotted on a walk of less than a mile. June 8, 1952, a tramp of less than two miles gave 16 Chats singing "on territory" and the count was confirmed on June 10. Territories seemed contiguous except when interrupted by woods, and males sang from 150 to 300 yards apart. This high proportion of Chats may result from vocal conspicuousness rather than a relatively higher population density.

HOODED WARBLER **(Wilsonia citrina).** Apr. 7-Sept. 30. Three broods. Fledglings fed: (a) June 28, (b) July 11; (c) fledglings with adults, feeding not observed, July 5. Three or four areas recognized. On his territory a male Hooded sings without reserve, feeds his fledglings without shyness, and leads his rollicking family swiftly through the woods, but his nest and its treasure he secretes well.

AMERICAN REDSTART **(Setophaga ruticilla).** Apr. 20-Sept. 25. Five broods. (a) incubating, May 30, nest in sycamore; fledglings fed: (b) June 6, (c) July 4, (d) July 8, (e) July 26. Fledglings are conspicuous because they beg for food for noisily.

Four warblers, Pine, Parula, Swainson's and the Ovenbird, known to have nested in Middle Tennessee, have not been found breeding at Basin Spring. Several nests of the Pine and one of the Ovenbird were found some years ago by A. F. Gainer at Craggie Hope on the Highland Rim about ten air miles northeast of Basin Spring. Parula Warblers have nested in past years and currently near the Narrows of the Harpeth about twelve miles distant. Swainson's Warbler was found nesting in Mark's Slough, Montgomery County, by Ganier and Clebsch (Ganier, 1940). The above are the only regional nesting sites of the Parula and Ovenbird known to me, and breeding locations of the Pine and Swainson's are almost as limited. A singing male Parula may appear at Basin Spring for two or three days in mid-summer and then be gone. There is one July record of the Ovenbird for the area.

Most surveys of specific areas, not only in Middle Tennesee but in other sections of the State, have been made on a "summer resident" or a "summer record" rather than an actual nesting-record basis. Vernon Sharpe (1931) in a review of nesting records for Middle Tennessee listed thirteen warblers "with appropriate averate dates" and without location notes. Ben Coffey (1948) in a July 4-6 survey at Natural Bridge, Wayne County, found twelve summer resident warblers. Eleven warblers were recorded July 6 at Craggie Hope on a one-day field trip (Nashville TOS, 1941). With the exception of the Great Smoky Mountains, no summer survey has reported more than fifteen warblers for a state park, county, or similarly limited area.

In view of these lists of summer resident species and additional isolated nesting records it would appear that the small, limited area of Basin Spring with its approach supports a group of breeding warblers representative in large measure (14 to 18) of the summer resident warblers of all Middle Tennessee. This is not to say that this small area is unique; any number of areas within twenty-five miles of Nashville in the zone leading from the Central Basin to the Highland Rim may support a similar population. This report establishes a certain concentration of nesting warblers in a small territory; it offers a few fragments for life history notes, and it indicates in small measure the kind of information that accumulates with frequent and regular attention to a particular locality.

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408 FAIRFAX AVE., NASHVILLE, TENNESSEE

SMITH'S LONGSPUR IN THE MID-SOUTH

By BEN B. COFFEY, JR.

The Smith's Longspur (**Calcarius pictus**) was recorded in Tennessee on November 22, 1953, and in Mississippi on November 29, 1953, apparently for the first time. The Memphis Christmas Count of Dec. 27 listed the only ones of this species reported from the entire country. This is another "short-grass" species which is apparently extending its winter range southeastward as a result of drouths in the plains and in spite of lesser drouths here. The increase in pasturage in the Mid-South may be a factor. Altho we speak of some species as "westerners" it must be remembered that they are just as rare west of the Continental Divide as here. In a recent letter Dr. Allan Phillips mentioned that the last addition to the Arizona state list was the Smith's Longspur.

Beginning with the 1947 Christmas Count, "Audubon Field Notes" has tabulated the high count for each species. No Smith's Longspurs were listed for the first four years. In 1951 the only ones were 15 on Dec. 24 at Lonoke, Ark., our first Mid-South record and the second Arkansas record. In 1952 the species was listed on one count in each of three plains states (high count, 105), plus one bird at Lonoke and 35 at Shreveport. For 1953 two flocks at Memphis were the sole reports. Undoubtedly the species' wintering areas are not embraced in the limited area of the various Counts. There are occasional references in the "Notes" for other times, of flocks up to 150, as far south as Houston, Texas, and east to Oxford, Ohio.

On Nov. 22, 1953, I was on a third visit to the Penal Farm, just east of Memphis, in an attempt to learn if Sprague's Pipits had returned. I left the creek bottom fields preferred by the flocks of "lapits" (coined for Lapland Longspurs, Horned Larks and American Pipits) and tried the gentle rolling pastures, usually barren of results. On a small knoll I heard a Sprague's note overhead and then flushed one or another bird back and forth out of sight. I called to Orval Wood for help as I realized then it was not always a Sprague's that took flight. There was one with a longspur rattle but with white outer tail feathers conspicous from above. We got up four Sprague's Pipits separately and apparently just the one Smith's Longspur three more times before we had to leave. On Nov. 28 I returned to this site and eventually got up a flock of 27 which, after moving some distance, returned to circle (freely speaking) before alighting not too far away. The flock was checked Dec. 5 and 27, Jan. 30, and Feb. 6 for respective counts of 25, 28, 24 and 30. Later we found there: Mar. 6, 2; Mar. 14, 1; and Mar. 28 and Apr. 3, none. The birds were nearly always in the same small area.

On the Christmas Count, Dec. 27, Mrs. Coffey's party accomplished their mission of getting the Smith's and two other "westerners." Meanwhile I was surprised to see Charles Marcus get up nine Smith's at Field 21, near Woodstock, north of town, with Edwin Poole and the writer at hand. I was hoping for Sprague's Pipit there and did get two on Feb. 6 plus one Smith's. Neither were found there later. These two localities were the only ones where we found these two species in West Tennessee. Outside Shelby County we tried north on U. S. Highway 51 and on another trip U. S. No. 45 W. and 45 E., north of Jackson.

Baerg, "Birds of Arkansas" (1951), lists a record from Fayetteville, Feb. 28, 1885 (Harvey). We know of no other Arkansas records besides our three recent ones. In addition to the two Lonoke Count records previously mentioned, we found two on the West Helena airport, Mar. 7, 1954. On Nov. 29, 1953, four of us tried for a first Mississippi record and deployed on Sanders (air) Field, a mile south of Walls, and our best Sprague's Pipit field of the previous season. When Mrs. Coffey noted the "different" rattle of a group of eleven longspurs, Harry Landis, Jr., and I joined her and George Peyton, Jr., for further verification of the Smith's on flushing. Other Delta fields were tried but my next Smith's Longspurs were six at the Tupelo, Miss., airport on Dec. 6. This was a first winter visit to that field despite the ten Christmas Counts at Tupelo; no Laplands were found. A long jaunt south on Jan. 1 and a return on Jan. 3 yielded one Smith's Longspur on the 3rd at Bruce Campbell Field east of Madison, north of Jackson. Two of the uncommon Sprague's were there but not one of the common "lapits!" Subsequently we continued to check Sanders Field at Walls (BC, GP, HL, R. Taylor); 8 on Mar. 6 was the last record of the flock, with a few until Mar. 21 and none on Mar. 27 and 28.

Despite the amount of walking involved I developed an affection for this species. The first and only time I saw them on the ground was in sparse grass, the eve of March 6, and light was not good enough for a reliable identification. You know the flock is in the grass, a few get up twenty to thirty feet ahead of you and the remainder still defy detecton until they also flush. Those in the air circle, sometimes widely; all assemble and eventually drop back into the grass elsewhere. The Lapland Longspur has white outer tail feathers which show on the underside and are noted when the bird is over us, but which are very hard to see from above as the bird moves away from us. As we look down on the Smith's when it rises, the white outer tail feathers are as noticeable as those of either pipit. (The Vesper Sparrow's white is noticeable chiefly as it alights.) In the air a short white arc is noted at the front of the wing on some. The underparts are buffy. The rattle of this species is softer than that of the Lapland and has been compared to the winding of a cheap watch. It also gives a weak sparrow-like note but, to date, I haven't heard it give any note resembling the "cheuuu" of the Lapland. The notes of the Sprague's Pipit (usually on the same field) are abrupt, hoarse-like, and high-pitched, given in twos, threes, or singles. This pipit has a very bounding flight.

As yet we haven't found the two longspurs together, and the Smith's has been restricted to an area where the grass **Aristida** (sp.) is found as pointed out by Horace H. Jeter (The Wilson Bulletin, 1953, 65 (3): 212). I am indebted to Mrs. Coffey for the identification of this grass. Jeter submits the first Louisiana record of the species: Shreveport, old airport, one, Dec. 13, 1952, later up to 45 and tapering to 10 on Mar. 1, 1953. He writes that they returned the following season but left later when the grass was burned off. **Aristida** has been present wherever we have found the species and our general procedure is to drive, usually all day, and check all fields and pastures of at least moderate size where we see this grass. A few others we may check for Sprague's which is more general in distribution. Undoubtedly, if the species returns, we can find more but records are few for the number of highways traversed and fields walked.

Very rarely has a collection been made under the writer's scientific permit, but we thought it very desirable in the case of this species (nondescript only if you don't know it in the field) for some outside doubter, twenty or fifty years from now. I am indebted to R. Demett Smith, Jr., for his assistance at the Penal Farm and to Mrs. Coffey at Walls. On Mar. 6, 1954, a Mississippi collection was made at Sanders Field, Walls, and thru the courtesy of Capt. Tom Hooker, a Tennessee specimen was secured as well as a Sprague's Pipit, the latter also a first Tennessee collection altho recorded a year previously. If the bill is concealed from view, the inanimate skins of the two species are difficult to distinguish. The weights, in grams, of the two Smith's Longspurs, both females, about an hour after collection were: Tenn., 28.6, and Miss., 28.8, or more than 6 grams heavier than the pipit. Collections were made at 3:30 and 6 p.m., respectively. Stomach contents were almost entirely broken pieces of what appeared to be **Aristida** seeds and grit with six of the complete seeds in the Tennessee bird and ten complete seeds plus one hulled Johnson Grass seed (**Sorghum halepense**) in the Mississippi specimen. The Sprague's, on the other hand, contained no weed seeds. These data were supplied by Mrs. Coffey and Mr. Smith. The Mississippi specimen is at the Museum of Zoology, Louisiana State University, and the Tennessee specimen in the collection of Albert F. Ganier, Nashville.

MEMPHIS, TENN.

* * *

The Round Table

PIPING PLOVER AT MEMPHIS—On August 9, 1953, near the north end of President's Island, a short distance from downtown Memphis, Mrs. Barbig and I noticed a flock of mixed shorebirds feeding on the mud flats along the Mississippi River. Approaching quite close, we identified eight species. One individual was outstanding from the Ringed (Semipalmated) Plovers which it was with. Its light, almost white, plumage and bright yellow feet and legs identified it as a Piping Plover (**Charadrius melodus**). This is apparently the third record for the state, the first being south of Memphis, May 5, 1935 (Migrant, 6:35, 1935) and the second at Knoxville in 1952. The area was again checked on August 15 and 16, and the bird was present on both dates.—HOWARD BARBIG, Memphis, Tenn.

HORNED GREBE AND DOUBLE-CRESTED CORMORANT ON LAKE PHILLIP NELSON—A Horned Grebe in breeding plumage was seen on Lake Phillip Nelson (15 miles s.e. of Elizabethton, altitude 3500') by the writer in the early morning of May 30 and by Mrs. Behrend and the writer in the evening of May 31. According to Mr. Tom Morgan, who lives at the Lake, this bird had been present approximately two weeks. It was still on the lake on June 19.

Further in the morning of May 30, watching a Pied-billed Grebe on the Lake through binoculars, the writer saw a large dark bird in flight pass through the field of vision. Identification was not possible, but it was surmised the bird was a Cormorant. In the evening of May 31 the bird was confirmed to be a Double-Crested Cormorant. An unexpected close view of it was obtained when, only about 30 ft. distant, it was accidentally flushed. It skittered awkwardly on the water before rising, flying low a few hundred yards and alighting on the Lake among dead trees and bushes near the opposite shore. The back of the bird in flight looked brownish. The orange chin patch and webbed feet were plainly visible. The only previous published record of the Double-Crested Cormorant in the Elizabethton area is that of two birds on Watauga River and, I believe, Wilbur Lake, a few miles southeast of town, in late Fall of 1948 (MIGRANT, 21:58): — FRED W. BEHREND, 607 Range Street, Elizabethton, Tennessee.

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MID-JULY HOUSE WREN SURVEY — Again the Elizabethton Chapter of T.O.S. has sponsored the House Wren survey during the period July 10 to 19 inclusive. The area was more extensively and more thoroughly covered than in the past. All towns in which T.O.S. members are located, from Chattanooga to Bristol, were invited to participate and the response was indeed gratifying with all towns reporting except Bristol.

Mrs. West reported from Chattanooga stating that in twenty months of record keeping only one House Wren has been recorded, that on March 9, 1954. Mrs. Clara Dunbar from Oak Ridge states she toured the city from 7 to 8:30 a.m. and did not see or hear a House Wren. Mrs. E. E. Overton of Knoxville reported two nesting pairs during the census period and two at an earlier date (J. B. Owen). One pair was located in Sequoyah Hills in West Knoxville and a pair in East Knoxville which were apparently incubating their second clutch during the survey period.

From Gatlinburg, Dr. Arthur Stupka reports that he has neither seen nor heard House Wrens in the area during the period in question. Dr. Tanner reports that he made several trips through parts of Gatlinburg, Sevierville and Pigeon Forge but had heard no House Wrens. Mr. and Mrs. J. B. White made an afternoon trip to Newport but failed to locate any singing House Wrens. From Greeneville Mr. White reports that on five trips during the census period nine singing House Wrens were located in the vicinity of Greeneville.

Johnson City appears to have had more complete coverage with approximately 15 singing individuals located. They were fairly well distributed over the city and outlying suburbs. Mrs. Jackson states, "The House Wren has nested at 224 East Holston Avenue for 7 consecutive years and at 210 East Unaka Avenue for the fourth straight year. Individuals participating in the Johnson City count were Mrs. Hugo Doob, Jr., Mrs. S. D. Jackson, Mr. and Mrs. J. B. White, Mr. and Mrs. Fred W. Behrend, Mr. Bruce P. Tyler, the Sinclairs, and the Herndons.

On the morning of July 11, Mr. J. C. Browning and the writer passed through Milligan and Unicoi on the way to Erwin. In Erwin five singing birds were located; one bird was found on the South end of town singing from the top of a utility pole near the railroad tracks at Robertson and Vinton Streets. Four others were located in the Northeast edge of town in the vicinity of New, Tucker, Park, Ash and Fifth Streets.

Mrs. Switzer reports from Kingsport as follows: "We had only five other members participating in this year's count. We covered approximately the same territory as last year. We found a total of 19 nesting pairs in this residential area."

On the morning of July 10, Mr. Roby D. May, Jr., Mr. Dickie Hughes and the writer toured the entire city of Elizabethton and the suburbs, finding four singing House Wrens on the outside of the city limits to the Southwest. Two were near the end of Pine Hill Extension and the other two on the Gap Creek road between the Douglas and Southside schools. Mr. and Mrs. Web Mottern reported a House Wren nesting in their garage which is located on the North side of the Watauga River near the West end of town.

During the afternoon of July 11, Mr. and Mrs. J. C. Browning covered the area in the vicinity of Hampton but found no House Wrens.

On the afternoon of July 17, Harry Farthing and the writer located two singing House Wrens (1 nest) at the home of Mr. E. E. Hampton near the Cloudland High School in Roan Mountain and one near the intersection of the Shell Creek and State Line Roads. On the same trip we continued through Burbank to the top of Roan Mountain but no House Wrens were located along the way.

On July 18, Mr. Roby D. May, Jr. and the writer toured up Stoney Creek to Shady Valley and made a loop through the valley but located no House Wrens. We then proceeded to Mountain City and located four singing House Wrens within a space of about one mile and a half before we entered the city from the Northwest. On the road from Mountain City to Laurel Bloomery we located one singing bird about two miles from Mountain City. On the return trip we toured Butler, Hampton and Valley Forge but found no other House Wrens. On July 17, the Behrends reported two singing House Wrens in Newland and two in Linville, N. C.

A total of fifty odd singing House Wrens were reported during this survey which indicates very definitely that the House Wren is quite well established in Upper East Tennessee, has been nesting here for several years and is extending its territory down the Tennessee Valley.

We acknowledge with grateful appreciation all of those who have participated in the survey and reported their findings.—LEE R. HERNDON, ELIZABETHTON, TENN.

A HOUSE WREN AT LEBANON — A lone male House Wren appeared in my garden at the end of May, 1953. He immediately took possession of a nesting box from which a brood of Bluebirds had emerged only a few days before. He sang endlessly and worked prodigiously cleaning out the box and carrying in new nesting material. This continued for about four days when the bird disappeared. I thought he might have gone to bring his mate to the new home and I was thrilled when, after an absence of one day and night, the song sounded from the garden again. The male was at work at the box, stopping frequently to sing, but no female ever appeared. Just a week from the time I first noticed him, the male House Wren again disappeared.

I delayed reporting this incident in the hope that the wren would come back again, maybe with a mate, this season. I have watched carefully throughout the season but there has been no reappearance of my unusual visitor—the only House Wren, so far as we can ascertain, that has ever visited this area.—TRESSA WATERS, BOX 326, LEBANON, TENN.

* * *

The Season

MEMPHIS—Spring migration was marked by early arrivals, very occasional "waves" of transients, and the rapid drying up of shorebird habitats. A Purple Martin on Feb. 27, 7 Golden Plover at the Penal Farm on Mar. 6 (HL et al), and an Upland Plover at Sanders Field, Miss., on Mar. 13 were early. The latter species was uncommon and the first Tennessee arrivals noted were 5 at the Penal Farm, Apr. 3. Plowing was about three weeks early, probably accounting for the Golden Plover bypassing areas of former abundance in nearby cotton plantations of Mississippi and Arkansas, altho they were commoner than usual at the Penal Farm pastures with highs of 450 on Mar. 21 and 310 on Apr. 3. For a second season we had a "flock" of Greater Yellowlegs with 32 on Mar. 21 near Walls, Miss.; a week later the temporary solugh was dry. Seen there on Mar. 13 were 5 and 8 Tree Swallows (GP, BC), about a month early. First Broad-winged Hawk records, all on Apr. 4, were: 2, Overton Park (GP); 2, Chickasaw S. P. (Alice Smith, BC. LC); and 1, West of Scottsboro, Ala. (Dr. and Mrs. Tom Simpson).

George Peyton, Jr., and Harry Landis, Jr., undertook the bulk of the Overton Park observations and listed six species there for our first ever in March. These were: Mar. 25, Ruby-throated Hummingbird, 1, Kentucky Warbler, 2; Mar. 27, a Crested Flycatcher, a Blue-winged Warbler, two Worm-eating Warblers, and a male Yellow-throat. The Blue-winged and Worm-eating were found at separate times by each observer and again on Mar. 28 (GP). Spring Lake S. P. Miss., Mar. 28, furnished others: 2 Crested Flycatchers (LC et all), Worm-eating (GP & HL), 2 Yellow-throats (GP & RDS separately). Kilian Roever also recorded a

Yellow-throat on Mar. 28 at Huntersville. Peyton reports a Mourning Warbler on Apr. 16 (early) and a Connecticut Warbler (rare) on May 7, in Overton Park. He also found 16 Pine Siskins there on Mar. 19 while Roever reports the species at Huntersville the second and fourth weeks of March.

Summer temperatures were much above normal and rainfall below normal for a third very dry summer. A moderate number of herons and 15 Semipalmated Sandpipers were at Mud Lake, June 12; next week the lake was dry for the duration. The river was near zero gauge much of the time. A few shorebirds were found in Memphis at the northeast corner of President's Island after mid-August. On the 21st, Peyton and Landis found a Black-bellied Plover there, also a Buff-breasted Sandpiper (third Tenn. record). Two of the latter were there Aug. 28 and as close as ten feet to us (GP, HL, BC). No Upland Plovers were found at the Penal Farm June 5 and 19 but 11 scattered ones were noted July 10. On a tip from Kilian Roever a fourth Tennessee nesting colony of Bank Swallows was found at Heloise; June 6 (BC, LC, AS),—possibly 200 nests. Evident extension from the Tennessee River (West) colonies resulted in the first Mississippi nesting record of the Cliff Swallow,—17 nests under a Mississippi Hwy. 25 bridge near Pickwick, June 27. The bridge was completed in 1952. Barn Swallows nested there also. On June 13, I found an adult Lark Sparrow 5 miles south of Paris along old Hwy. 79.—BEN B. COFFEY, JR., Memphis, Tennessee.

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NASHVILLE—This third successive hot and dry summer undoubtedly has affected the residence of our summer bird population. Opinion seems to differ as to which group (or groups) have shown most evidence of this effect. It is possible that many birds have been driven into deeper and more moist woods, or into other watered areas, which would make certain species abundant in other areas. Vireos and warblers, for instance, have seemed scarce to one observer, while another observer has seen other species rare in his area. The Prothonotary Warbler seems to have been more common this summer and to have remained in evidence later in the season than usual.

Mrs. Laskey reports the following on the Warner Park Bluebird boxes: "In the third period of Bluebird nesting only half as many nesting attempts were made as during the same period of 1953; only 23 young were fledged in 1954 as compared with 60 for the comparable period of 1953; in late June and July, 6 sets of Bluebird eggs failed to hatch, presumably due to the excessive heat."

Evidences of late nesting reported are: a Yellow-billed Cuckoo's nest with young on Sept. 5 (AFG); young Cardinals leaving the nest on Aug. 22 (ARL); a young Robin being fed by parent on Aug. 15 (HM); a brood of Mockers leaving the nest on July 27 (HM); 9 active nests of

Doves in Centennial Park area Sept. 1, some with eggs, some with young (HM).

Interesting migration notes have been numerous. Upland Plovers were heard in flight the nights of July 16 and 23 and on 12 different nights in August (HM); a Wilson's Warbler was seen Aug. 6 (HM); Mr. Abernathy had Palm Warblers the middle of July; a female Golden-winged was seen at 408 Fairfax on July 26 (KAG) (another record of 1 Golden-winged on the same date in 1936 was reported by Mr. Ganier, page 71 of September Migrant that year); 3 Black-throated Green Warblers were seen at 408 Fairfax on July 31, and 2 at same location on Aug. 4 (KAG); Mrs. Lasky had a Magnolia on Sept. 3; 1 Oven-Bird was reported on Sept. 4 (SB), 1 on Sept. 5 (GM), 3 on Sept. 6 (KAG). These location were miles apart, which might indicate a wave.

Three Little Blue Herons, white phase, were reported on Stones River on July 11 (GM); this species was reported in the Radnor Lake area about the same time (exact date not recorded) (MC); Dr. Mayfield reported 3 Solitary Sandpipers, 2 Least, 1 Pectoral and 12 Green-winged Teal on Bush's Lake on Sept. 4; a Black Tern was seen on Sept. 6 (JR).

A group found an Olive-sided Flycatcher at Radnor Lake (AFG) Sept. 6, also 22 different species of Warblers, including Chestnut-sided, Blackburnian, Golden-winged, Magnolia, Black-throated Green, Bay-breasted, Wilson's, Canada and the two Water Thrushes.—SUE M. BELL, NASHVILLE, TENN.

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LEBANON—The usual late summer sequestration of birds did not come about in our area this year. There has been no apparent diminution at any point at any time. At our August meeting, when we checked from six widely separated points, birds openly present were as numerous, both as to individuals and as to species, as they were in June—or in any month in any year except those at the height of migration.

We are frankly puzzled and we offer no explanation. Conditions of drought, heat, and other weather factors have not differed essentially from those of 1953 and 1952. If anything has acted either to accelerate or to retard moulting, we do not know what it is.

The most striking thing we have observed is a tremendous increase over all previous years in the number of Bluebirds. This has been apparent throughout the season. At most of our check points on August 21, Bluebirds were present in flocks. Many were young birds still showing the speckled breast. We believe that most of our Bluebird pairs reared three broods this season.

In our "Up Yondah" area, along and under Snow's Hill above Dowelltown, there has been in progress a large road-building program involving considerable clearing of woods and the cutting away of whole faces of several ridges on the edge of the valley. This has resulted in major alterations in bird nesting and feeding areas. The effect on different species is in wide contrast.

Hooded and Kentucky Warblers, in previous seasons, nested in a small deep valley which has been largely denuded. They have not been see here this year but have nested lower down in an adjacent valley. The Yellow-breasted Chat, on the other hand, has moved in from the perimeter where it formerly nested. Also, one pair of Catbirds and some Chickadees have been observed in this area where they had not been seen before. Bluebirds have abandoned the ridges on both sides of the valley but have been seen at intervals in the surrounding woods. Pileated and Red-bellied Woodpeckers have been present but have kept their distance where formerly they moved close in. Cardinals, Titmice, Carolina Wrens, Red-eyed Vireos, Black and White Warblers and Summer Tanagers have not been disturbed by the changes. Down on the valley floor, Bluebirds, Prairie Warblers, Indigo Buntings, Field and Chipping Sparrows remain as they were.—DIXON MERRITT and MILLARD C. KENT.

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CHATTANOOGA—This area has experienced the hottest and driest weather on record for the months of June, July, and August since records were begun in 1879. There were 32 continuous days with 90 degree or above, which exceeded all previous records. Rainfall is 5.09 inches below normal for the year. The total rainfall from March through August was 18.16 inches with a deficiency of 9.83inches for the same period.

Among the Spring migrants, interesting because of scarcity, were the following: Double-Crested Cormorants, Apr. 8; American Egret, Apr. 25; Yellow-crowned Night Herons, Apr. 8; American Bitterns, Apr. 18 to May 5; Olive-sided Flycatcher, Apr. 18; Least Flycatcher, Apr. 28; House Wren, Mar. 9; Worm-eating Warbler, Apr. 10. to 13. A very early Black-poll Warbler was seen Mar. 27.

At least 2 pairs of Bachman's Sparrow nested in Chickamauga Park. An unsuccessful search for a nest was made on several days, but newly fledged young was seen being fed on June 4.

Blue Grosbeaks increased from 4 pairs last year to 7 pairs in the same area. The first 1954 male was seen on Apr. 23.

The first Little Blue Heron (an immature) for the area was seen Aug. 23.

Wandering warblers have been practically nonexistent during August. Only a Canada and a Golden-wing (not known to nest nearby) have been seen. As of September 1, no other early migrants or wanderers have been observed.

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KNOXVILLE — April was the warmest on record and drier than usual. During the first three weeks May was abnormally cold with more rain than usual. July was the hottest on record, and the entire summer has been very dry.

Four Sandhill Cranes were reported by Brockway Crouch, seen flying and heard calling near Knoxville on Mar. 25. Other unusual spring migrants seen in the Knoxville area were 2 Least Bitterns on May 2, an Olive-sided Flycatcher on May 23 and another on the 24th, 2 singing Northern Waterthrushes on May 10, and one Connecticut Warbler on

May 20 and another on the 23rd (Mrs. R. A. Monroe). Cape May Warblers, usually rare, were this year quite common; they were seen from Apr. 15 to May 8 with 14 seen on May 2. Pine Siskins were not reported this year except for a group of 12 seen on Apr. 25.

There were several unusually late migrants seen during the cold May; examples were an Olive-backed Thrush on May 27, a Chestnut-sided Warbler on May 30, a Canada Warbler on May 31, and a Rose-breasted Grosbeak on May 23. The last White-crowned Sparrow seen was on May 21; this species is usually uncommon but has been reported often this year.

One or two Bald Eagles have been seen thru-out the summer on Norris Lake. On Aug. 15 in the Gallaher Ferry vicinity were seen 1 Piedbilled Grebe, 3 Little Blue Herons, and Cedar Waxwing with food in its bill (JCH). An unusually large flock of Purple Martins roosted in the Sequoyah Hills section of Knoxville during late August; all but a few stragglers disappeared between the evening of Aug. 28 and that of the 29th.

An unusual record is that of a Whip-poor-will calling near Loudon on Sept. 1 (JCH). Early fall migrants were 2 Ospreys on Norris Lake on Aug. 25, a Black-throated Blue Warbler on Sept. 1, and a Red-breasted Nuthatch on Sept. 12.—J. C. HOWELL and J. T. TANNER.

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GREENEVILLE—Spring and summer in general saw continuation of the drought, with some summer rainfall. Two observable results of the little rain and of the heat respectively were, first, a scarcity of ducks and shorebirds, there being no flooded creek bottoms to attract them; second, when the July 2nd heat was broken by afternoon winds preceding rain, the two fresh Chimney Swift eggs which fell down our chimney proved to be hard-cooked.

Interesting spring observations were an American Bittern remaining from March 22 through April 4 (RN); a Hermit Thrush on April 4 singing four times, this species not previously having been heard to sing here (RN, RRN); five Yellow-crowned Night Herons April 11 (RN, JBW); one Blue Grosbeak May 1 (Darnell) and five May 2 (Irvines); a Short-billed Marsh Wren in song occupying a green wheat field May 2 through May 13 (RN).

Species unusual to this area during summer were a nesting pair of Yellow-crowned Night Herons (RN) and a Blue Grosbeak of which no nest was found (RRN), Pine Warblers nested near the home of Tusculum (Irvines) and one near Marvin (RN). J. B. White found nine pairs of House Wrens nesting about Greeneville, a marked reduction over last year's numbers.

Of late summer wandering species, an American Egret was on Roaring Fork July 21, five on Cherokee Lake (Hawkins County) on July 25 (RN). The Whites on a day in early August saw on Cherokee Lake a Black-crowned Heron, American Egrets, an immature and an adult Little Blue Heron.

A Baltimore Oriole August 22 was presumably an early migrant. A

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Redstart was seen September 1 and 8. On August 28 at 6:40 p.m., 75 to 100 Nighthawks proceeded southwest, not in the leisurely manner of feeding but rather in a direct flight suggesting migration (RN). RUTH REED NEVIUS.

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KINGSPORT—This summer and early spring have been characterized by abnormal distribution of rainfall, occasional violent winds, and periods of abnormally high and low temperatures. In spite of the shortage of water, which has become an emergency in residential areas supplied by well-water, extra rain fell in spring and early summer, accounting in part for an exceptional growth of vegetation, especially trees and shrubs. Some areas of Sullivan County have been much worse afflicted than others in the droughts of the past few years.

There are distinctly fewer spiders and insects this year.

Birds in general were very abundant, especially those found in residential areas. Many Kingsport residents asked the writer for explanation of this situation and for identification of various species, most frequently yellow Summer Tanagers, of which they had become aware for the first time.

Field birds, especially sparrows, seemed less numerous than usual this year, altho Bachman's Sparrow, a rare bird in any case, was somewhat more active. Woodpeckers were generally more numerous this year. A greater variety of bird songs than usual in late August and early September was noted by Ann Switzer and also by the writer. On the basis of a rather limited coverage of the field, we can say that the southward migration is probably somewhat early.

The newest TVA hydroelectric projects, Boone Dam and Fort Henry Dam, are located in Sullivan County. Both lakes have been filled, and Boone Lake is already open for fishing. These lakes offer increased opportunity for bird study. Green Herons, Chuck-Will's-Widows and Kingfishers are easily located there. Unfortunately we have had little systematic observation.

Mrs. Switzer, our most reliable observer, has seen Wood Ducks at Mr. Fowler's fish hatchery at various times during the summer, our first summer records for this species.—THOMAS W. FINUCANE, Blountville.

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Bird Mortality During Night Migration

OCTOBER 1954

On the nights of Oct. 5-6, 6-7, and 7-8, 1954, a tremendous number of migrating birds were killed at a minimum of 27 localities scattered thru-out the eastern and southeastern states. The accidents occurred around airport ceilometers, brightly lighted areas, and at television and radio towers. Similar accidents have occurred in previous years, those at ceilometers prior to 1952 being summarized by Howell, Laskey, and Tanner (1954) and one involving buildings being described by Ganier and others (1935), but never to our knowledge has there been such a widespread series of accidents on three successive nights. The causes of the accidents were not unique, but the widespread occurrence and the large number of birds killed at some places were unparalleled. There is presented here a general summary of these events followed by more detailed accounts of the accidents that happened in Tennessee. The details of most accidents in other states are being published in other journals. The information presented here has been compiled with the cooperation of J. W. Aldrich, A. F. Ganier, D. W. Johnston, F. C. Lincoln, C. S. Robbins, and others, including those who have supplied the detailed accounts that follow.

The "villain," if there was such, was the weather. In general, fall migration is stimulated by a drop in temperature and winds from the north, ie., by a cold front. A moving cold front frequently produces a solid overcast with low cloud ceiling which forces the migrating birds to fly at levels lower than usual; the article on previous ceilometer mortality (Howell, Laskey, and Tanner, 1954) showed that these conditions have always prevailed at previous accidents. In 1954 the daily weather maps of the U. S. Weather Bureau show that from Sept. 24 thru Oct. 4 there was generally fair and warm weather over the country from the Great Lakes east and south. On the night of Oct. 5-6 a cold front moved across the northern states reaching a line from southern Illinois to southern New Jersey shortly after midnight, and the sky was overcast in the region just behind the cold front from Ohio eastward. A number of birds were killed at the Empire State Building in New York City, and, on Long Island, several hundred birds of at least 34 species were killed at the ceilometer at Mitchell Field, Hempstead, and over a thousand birds of at least 50 species at the Suffolk County A. F. Base ceilometer (G. S. Raynor). At least 210 birds of 38 species were killed at the ceilometer at Allentown, Pa. (J. E. Trainer).

At midnight of Oct. 6-7 the cold front had reached a line extending approximately from Jackson, Miss., to just north of Charleston, S. C., and the overcast covered northern Alabama, the eastern half of Tennessee, and the western half of North Carolina. In Tennessee on that night, birds were killed at Nashville, Smyrna, Shelbyville, Hohenwald, Tullahoma, Chattanooga, Oak Ridge, Knoxville, and Johnson City; detailed accounts of those accidents that have been investigated are presented below. Outside of Tennessee, on Oct. 6-7, a number of birds were reported killed in Kansas (newspaper reports), about 30 at the Greensboro, N. C., ceilometer (T. E. Street), and 300 at a television tower in Atlanta (D. W. Johnston).

The next day and night the cold front moved on into Florida, and on the night of Oct. 7-8, the overcast covered Alabama, Georgia, and lower South Carolina. It was on this night that the greatest number of birds were reported killed. Accidents occurring at ceilometers were: Winston-Salem, N. C., 190 individuals of 21 species (Chamberlain, 1954); Birmingham, Ala., 1600 individuals of 36 species (T. A. Imhof); Montgomery, Ala., at least 150 individuals of 10 species (O. L. Austin); Maxwell Air Force Base, Ala., 18 to 20 thousand individuals of 22 species (R. L. Edwards); Macon, Ga., about 25,000 individuals (D. W. Johnston); Savannah, Ga., an estimated 25,000 at one field and 2000 at another, a total of 19 species (W. P. Baldwin). Television or radio towers caused the death of about 200 individuals at Augusta and several hundred at Savannah, Ga. (D. W. Johnston), and of about 900 individuals of 31 species at Camp Cornelia, Ga. (Manager, Okefenokee Wildlife Refuge). At Charleston, S. C., a large but apparently undetermined number representing 24 species were killed around buildings (Chamberlain, 1954).

While the weather conditions can be said to be the cause of the accidents in the sense that they precipitated a large migration and, because of the low ceiling, forced the migrants to fly low, the weather was not the actual cause of death. It is obvious that at television and radio towers the birds were killed by colliding with the towers. The birds killed at ceilometers were, almost always, clearly victims of collision, for their bodies showed bruises, hemorrhages, or broken bones. There has not been evidence from accidents prior to this year to indicate whether the birds collided first with each other or with the ground. Observations bearing on this were made this year by Capt. R. L. Edwards at the Maxwell Air Force Base, near Montgomery, Ala., on the night of Oct. 7-8, and the following is from his report: "It was light enough that night so that the birds at the lower levels could be seen outside the beam. A few mid-air collisions were observed, following which one or both birds involved were sometimes seen fluttering groundward. A few were seen "spinning in" that might not have been involved in collisions."

After the accidents to migrating birds at the Nashville and Knoxville ceilometers in 1951, the U. S. Weather Bureau notified its stations that ceilometers could be turned off if birds started concentrating in the light. The men on duty the night of Oct. 6-7 at Nashville and Knoxville were aware of this directive. At Nashville, some members of the T.O.S. had anticipated the situation, because of the appearance of the cold front, and went to the airport (see A. R. Laskey's report). When they found many birds circling the beam, they notified the operator who turned off the light. At Knoxville, the operator himself noticed the birds and turned off his light. These actions undoubtedly saved the lives of many birds; the total number killed at Nashville was 315 and at Knoxville was 267, while at Chattanooga and at Smyrna where the lights burned all night the numbers killed were respectively 681 and about 650. It seems clear that much of the mortality around ceilometers can be prevented by turning off the light, and interested individuals can help by observing the ceilometer light when the dangerous conditions prevail; these are a cold front with an overcast during the season of fall migration.

If mortality does occur, avoidable or not, the opportunity to learn about birds should be taken. If possible, a complete count of the individuals of each species should be made, because in this way much can be learned about the migration routes of birds. For instance, the number of Philadelphia Vireos at Knoxville and Chattanooga came as a surprise to observers who rarely see these birds in fall migration. If complete counts are made for several localities, it will be possible to trace the preferred route of certain species. These accidents also provide opportunities to get much needed data on the weights of birds; if birds, while still fresh, can be weighed to the nearest gram or its equivalent, the data should be sent to the U. S. Fish and Wildlife Service, Patuxent Research Refuge, Laurel, Md. Sex and age ratios may be obtained by examination of the reproductive organs and the skulls; the skull of a juvenile bird is softer and more transparent that that of an adult, and this may be easily seen by slitting the scalp and separating the skin over the top of the skull. Most of the specimens picked up at Knoxville were examined for parasites by Drs. Ciordia and Jones, to whom the accident was a unique opportunity to obtain a mass of data. By efforts similar to these, we can turn an "ill wind" to some good.

Details of most of the accidents occurring in Tennessee are described here. Following the separate descriptions is a list of the birds killed at the different locations. — JAMES T. TANNER.

BIRD MORTALITY

NASHVILLE AND SMYRNA — The third major disaster to night migrating birds at the Nashville airport ceilometer occurred on October 6, 1954, when 255 birds of 21 species were killed. An additional 60 birds were gathered that regained flight by early morning. They were banded and released at my home. At Sewart Air Force Base, Smyrna, only a small number of the casualties were gathered, but the 100 delivered to me brought the total number of species to 24.

At 10:30 p.m., when my husband and I arrived at the airport, there was a great mass of small birds flying in the ceilometer beam, estimated at approximately 3000. From the highway, three-tenths of a mile away, the ceilometer beam appeared as a great, sparkling column of light. The reflections from the beam flashing on the breasts and wings of the milling birds produced this glittering effect. Walking across the runway toward the ceilometer, I found dead birds there. With a handful of them, I hurried to the Weather Bureau building to ask that the beam be temporarily turned off to allow the birds to disperse. This was in compliance with instructions from F. C. Lincoln of Fish and Wildlife Service, Washington, D. C. His letters of March 19 and April 17, 1952, appointed me to keep in touch with our local weather bureau (as others were appointed in other cities), to inform the weather stations when migrations were in progress so that stations may turn off the ceilometers if necessary and feasible before a large number of birds are killed. Weather stations where ceilometers are located were also advised. Our meteorologists complied immediately which doubtless reduced considerably the death toll.

On this occasion the same general weather conditions prevailed as on the two previous disaster nights (September 9-10, 1948, and October 7-8, 1951). A cold front reached Nashville that morning after a week or more of unusually warm weather. The U. S. Weather Bureau had reported a high of 92° on the previous day (October 5). The cold front brought overcast skies, cloud formations of stratus and strato-cumulus type, a trace of rain with lowered temperatures of 78° to 57° at night. Wind veered to the north with gusts up to 20 mph. By 6:30 p.m., the cloud height was only 900 feet (rising gradually to 2300 by 10:30 p.m.).

Miss Ruth Castles and Miss Jennie Riggs arrived at the airport around 9:00 p.m. and found birds flying in the beam. Miss Riggs estimated that there was about a quarter as many then as at the 10:30 peak. A. F. Ganier arrived about an hour later. At that time apparently, no birds had fallen. The first were found about 10:30.

For an hour or more, we five persons, using flashlights and aided by several of the airport personnel, worked fast, collecting birds from the runways, thus saving many from the wheels of planes and service trucks. One Tennessee Warbler was asleep on the runway with head tucked into its scapulars. All birds were found south and southwest of the ceilometer and within 250 yards of it. At 11:15 p.m. the cloud ceiling rose to "unlimited," the beam was turned on and there was no further gathering of birds about it that night. ,

The following morning, I went to the airport and picked up the few birds that had been overlooked. One of the employes told me that during the early part of the night such large numbers of birds flew into the brightly lighted hangar that the doors had to be closed. Several warblers were still flying high in the building at 10:00 a.m. One flew out as we watched.

The dead birds examined were fat. They showed skull and bill injuries. Magnolia, Tennessee, Chestnut-sided Warblers and Ovenbirds lead in numbers of casualties at Nashville and Smyrna.

The following night, October 7-8, 1954, similar weather prevailed except that the wind was north-east and the cloud ceiling remained consistently about 4000 feet. A report came to me that birds were in the beam, that it was turned off temporarily, and there were no casualties. On October 15, another cold front arrived with overcast and a trace of rain at 6:00 p.m. with north-west wind. Miss Castles, Mrs. Goodpasture, and I arrived at the airport about 8:00 p.m. Birds were flying through the higher section of the beam, heading south and southwest. In a ten-minute period, we counted 50 passing through. Only occasionally was one seen to re-enter the beam from the south as if attracted to the light. The cloud ceiling was not below 4000 feet at any time and by 10:30 p.m. the sky had cleared. No birds fell that night.

Last year on October 5, 1953, when the type of weather seemed to foretell a birdfall, Mrs. Goodpasture and I found many hundreds of birds in the beam about 1:30 a.m. when the ceiling had risen to 3700 from the 1100 feet recorded earlier that night. Several birds dropped to the grassy plot around the ceilometer. One struck me, then dropped to the ground, but all were able to fly off. A thorough search with flashlights revealed none on the ground. As the clouds lifted, the birds followed the brilliant reflection made by the beam on the under side of the cloud, flying about in this bright spot as long as it was visible. At 2:15 a.m. all was clear and birds passed through the beam at a high altitude in normal migration. The only casualty at the airport that night was a Tennessee Warbler found on the concrete driveway. From these observations, it appears that the greatest danger to night migrants occurs when a strong, gusty northerly wind and a cloud ceiling of less than 2000 feet prevail during the pre-midnight hours when the migrants are attracted to the beam in the low flights prevalent at such times and then build up to great numbers.

The Sewart Air Force Base ceilometer at Smyrna is located 10 miles southeast of the Nashville airport so the same weather conditions prevail. Each time that birds have been killed at the Nashville ceilometer, this ceilometer has taken a heavier toll of the migrants. As military installations have a special "hood" attached to their ceilometers which eliminates the bright beam and allows the cloud-height recordings to proceed as usual with the invisible ultra-violet rays (black light), these catastrophes could easily be avoided if the operators at Air Force Bases were alerted on the danger nights. This year on the night of October 6-7, 1954, an estimated 600 to 700 birds fell. Dr. O. C. Ault and Dr. G. R. Mayfield visited the base on the following morning, bringing back a few living birds (12 were banded and released) and 88 dead birds, all of which were delivered to me for identification and listing. As numerous large vehicles had passed over the runways and grass plots by that time, most of the other birds had become more or less mutilated and were not gathered.—AMELIA R. LASKEY, 1521 Graybar Lane, Nashville.

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SHELBYVILLE — On the night of Oct. 6, 1954, an estimated 300 birds fell to the street about the Court House square at Shelbyville, Tenn. This was briefly reported the following day in the Nashville "Tennessean," with the theory that they had been killed by the cold. Shortly after, G. R. Mayfield and the writer went to Shelbyville to investigate and there we talked to George Harrison, local game warden, who had looked the premises over early on the morning of Oct. 7. Mr. Harrison still had two of the victims, a Yellowthroat and a Magnolia Warbler, and said most of the other birds appeared to him to be similar. When asked to make a very conservative estimate of the number on the street he said "at least 300." We are inclined to think this estimate was high. He said that a dozen or so were picked up alive, apparently numbed by the cold, and when placed in the sun in a window they flew off after they had warmed up. Most of the birds, he said, fell to the pavement on the west and southwest sides and some were on the sidewalks against the store fronts. The large courthouse has a grass plot all about it with two or three medium size trees on each side. Brilliant street lights on poles have recently been installed, so that the square is brightly illuminated at night. The night of Oct. 6 being damp, chilly, and windy, few people were probably on the square at late hours and Mr. Harrison did not know when the birds fell.

The most probable explanation is as follows. A vast migration is known to have moved southward that night, riding the N-W winds of a cold front. As is usual in migration, birds rise for their flight after dusk and begin to come to earth again shortly after midnight, to rest. Such birds approaching Shelbyville and seeing the brightly lighted condition of the square would have been attracted to it as a place where they might be able to see how to effect a safe landing. Once there, and not being inclined to leave light for darkness, they eventually fluttered, fell or even dashed themselves against the pavement, or against obstructions, where they were found next morning. Those which had settled on the cold pavement might easily have died from several hours exposure to the cold wind. It will be remembered that birds accidently left overnight in bird-banders traps will often die from exposure on a chilly night. We were told that a number of birds were killed about the U. S. A. wind tunnel building near Tullahoma on the same night. Mr. Harrison told us that the premises there are also brightly lighted.

In connection with bird-falls not occurring at ceilometers, there is an account of such an occurrence in THE MIGRANT for Dec. 1935. At that time, Oct. 23, 1935, John Bamberg wrote of seeing hundreds of birds fluttering about the water tower at Wheeler Dam construction village; the white tower being lit up by four flood lights. He picked up 50 of the victims. A cold front and low ceiling prevailed. At neither of these places were the birds attracted by the "light mushroom" on the under side of low clouds, such as is produced by ceilometer beams.

On Oct. 8, I visited the Camp Campbell Airport, 50 miles west of Nashville and could find no dead birds about the ceilometer. The observer on night duty told me that he had seen none and his record showed that the sky had cleared by 8 P.M. I also visited the W.S.M. television tower at Nashville and the powerful floodlights at Radnor railway switching yards but could find no evidence of birdfalls there.—ALBERT F. GANIER, Nashville 12, Tenn.

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CHATTANOOGA — Early in the morning of October 8, 1954, after reading a news report of the bird fatalities in Knoxville, the writer first telephoned the Weather Bureau at Lovell Field, Chattanooga, and then went to the airport. Finding too many dead birds on the field for me to handle, I obtained the help of Mrs. Walter Forbes and a servant. The three of us collected 578 birds that morning, of which 36 were alive, from the vicinity of the ceilometer. After dinner that night several members of the Chattanooga chapter, including Dr. Wilbur K. Butts, came to the house to sort the species. The next morning my husband and I returned to the area and picked up an additional 103 birds that were lying outside the eastern boundary of the airport; 6 of these were alive. A total of 35 species was identified.

After further investigation, it became obvious that the accident had occurred on the night of Oct. 6-7. Mr. Sam Delay, Weather Bureau employee on duty that night, stated that there was much chipping at his office (1000 feet from the ceilometer) and many "things" flying in the beam. The greatest concentration was at about 4 a.m. (Oct. 7); the weather data for that time follows: ceiling 1700 to 2300 feet; ground visibility, 20 miles; wind velocity, 3 mph at 1000 feet, 12 mph at 2000 feet, 16 mph at 3000 feet; wind direction, from NW.

Of the total of 681 birds picked up, 430 were found north and northwest of the ceilometer, 112 were south and southwest of that point, 103 were east of the airport, and the location of the remainder was not noted. The birds that fell south of the ceilometer were within 500 feet of that point, while of those found to the north, a number were as far away as 1500 feet. In addition to the birds recovered, a number of live birds could not be caught and a few flew away as if they might make a complete recovery.

No data were kept on the positions of the dead birds, but certainly a great number appeared to have flown into the ground, striking bills and heads, and in some cases breaking wings. Among those living, broken wings were the most common injury; only a few showed broken legs. ADELE H. WEST, Chattanooga, Tennessee.

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OAK RIDGE—At 8:00 a.m. on Oct. 7, 1954, I received a report that hundreds of dead birds covered the K-33 parking lot in the Oak Ridge Area, Tenn. I confirmed this report a few minutes later when I visited the area briefly. About two hours later I spent a full hour in the area counting and picking up representative specimens. Mr. William T. Miller, Biologist at the Oak Ridge National Laboratory, also collected some of the dead birds.

High tension power lines bound the parking area on the north, south, and east sides, and four lines of lighting poles with wires are within the lot. To the east across the road is a large transformer station and fifty yards beyond that is the K-33 building. The parking lot is lighted at night as is much of the area between the lot and the K-33 building, a total area of about 12 acres.

Dead birds were everywhere, but the largest numbers were found around and between the cars parked directly under the parking lot lights. Many of the dead birds had head injuries such as broken bills. Some had broken wings, others had broken legs, and others had breast bruises. The nature of some of these injuries suggests collision with wires, towers, car bodies, and pavement.

Mr. Miller had collected 121 birds before I made a count. I counted 454 dead birds, including 126 crushed beyond identification by car wheels. There were many birds within the transformer station area, to which I did not have access, and time did not permit my covering more than a small part of the edge area. I estimated that about 1000 birds were killed. Some living birds were still present. Mr. Miller and I each identified 17 species, but not all were the same so that the total number of species was 22. Dr. J. C. Howell confirmed the identification of the Savannah Sparrow, Acadian Flycatcher, and Swainson's Warbler.—ROBERT J. DUNBAR, 106 Glendale Lane, Oak Ridge.

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KNOXVILLE—At the McGhee-Tyson Airport, near Knoxville, Tenn., there was a solid overcast almost all night of Oct. 6-7, 1954, with the ceiling mostly at 2500 feet. Winds were from the north and north-northeast, about 17 mph with gusts up to 25 mph. At midnight the Weather Bureau operator phoned me and reported that an estimated 2000 birds were circling around the ceilometer beam. When I arrived at the airport, the ceilometer light was turned off, so I asked the operator to wait until I could get out to the light and then to turn it on.

At 12:40 a.m. the ceilometer light was turned on. One bird immediately passed thru the beam, flying south at an elevation of about 1500 feet. Others followed rapidly. In a minute or two some appeared in the light around the beam, circling and hovering. The number doing this increased; five minutes after the light was turned on there were about 30 birds; ten minutes, about 300; twenty minutes, an estimated 1000; thirty-five minutes, an estimated 1200 to 1500. The number later fell, then rose, then fell again, ranging from 800 to 1500. Almost all of these birds were in the dimly lighted area surrounding the intense beam, and in this inverted cone were fairly uniformly distributed from 2000 feet down to 20 feet, with a few coming lower. Most of them appeared to be passing back and forth across the direction of the wind, staying in the lighted area only about 15 seconds before disappearing in the darkness; the longest I could follow one bird was 30 seconds. Birds that entered the beam itself passed thru very quickly. Many calls were heard, including those of Black-crowned Night Herons and Green Herons.

The build-up in the number of birds during the first half hour after the light was turned on was similar to that described by Bartlett (1952). For the first twenty minutes the number increased at an ever increasing rate, exponentially. This indicates that the migrating birds are attracted not only by the beam itself, but also by the light reflected from the birds flying in and about the beam; as more birds get in the light the region of light and lighted bodies becomes more conspicuous and attracts birds from greater distances.

Attempting to determine what actually causes birds to fall or fly into the ground around a ceilometer light, I watched carefully for mid-air collisions, but without success. I also tried to see birds coming down, but could not even tho I occasionally heard one hit the ground. The light was turned off at 2:05 a.m. and was used only for short periods during the remainder of the night.

The following day the area around the ceilometer was covered by Honorico Ciordia, W. J. Cloyd, J. C. Howell, A. W. Jones, Geneva Lance, and myself. All dead birds were counted and identified if possible. A total of 267 individuals of 26 species was found. Most of the birds lay south of the ceilometer, the pattern of distribution being almost identical to that of the 1951 accident (Howell and Tanner, 1951). There were a few living birds still present, some able to fly.—JAMES T. TANNER.

NOTE—When the numbers of birds killed in 1951 were compared with those of this year, an error was found in the 1951 published report (Howell and Tanner, 1951); the numbers of Tanagers should have read "Scarlet Tanager, 33; Summer Tanager, 4."—J.T.T.

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JOHNSON CITY—About one thousand birds were killed on the night of Oct. 6-7 at WJHL television tower in Johnson City. This tower is located near the summit of Tannery Knobs at approximately 1850 feet elevation, about 200 feet higher than the business section of Johnson City and about three-fourths of a mile distant. Tannery Knobs rise rather abruptly 200 feet from the surrounding plain. To the northeast, broken ridges rise less abruptly to slightly lower elevations. A narrow valley of about 1600 feet elevation separates Tannery Knobs from the ridges to the northeast.

WJHL-TV tower is triangular in cross-section with metal pipes at the corners. For about 500 feet the tower appears to have little or no taper except the main framework of metal piping which forms the three corners of the triangle. Six inch piping was used for the bottom sections and progressively smaller pipe for sections further up. The topmost section of perhaps seventy-five feet in length is reduced appreciably in size and tapers to a point 632 feet above the ground. A metal ladder and a few cables and wires run the length of the tower within the triangular area. The tower is held securely erect by four sets, three each, of one-half inch steel cable guy-wires. Red lights are located at five levels and about equally spaced from the top down. Only one bulb is at the top and at the second location from the bottom, the latter being the only light within the framework. These two lights blink intermittently. At each of the other three levels, three lights are mounted on arms extending about eight inches from the corners. All of these lights are operated from dusk to dawn. None of the lights appear to be shielded or protected in any way.

Broadcasting is discontinued at 12:30 a.m. on week-day nights, which was the time of closing down the transmitter on the night of October 6-7, 1954.

The temperature in the area on October 4 and 5 had ranged between 60° and 91° F. On the night of October 5, the sky was clear, the moon approximately half-full, the atmosphere calm and the temperature ranged from 75° to 70° F. between the hours of 7:35 p.m. and 11:00 p.m. While observing the moon through a 35X telescope during this period, birds passed across the face of the moon at an average rate of one every 2.2 minutes. The preponderance of them were traveling in a southwesterly direction. The maximum temperature on October 6 was 82° F. at 2:00 p.m. The temperature dropped 18° F. in six hours, then 12° F. during the next eleven hours to a minimum of 52° F. by 7:00 a.m. on October 7. The night of October 6-7 was cloudy and unsuitable for moon-watching with a strong wind blowing from the northwest during the early part of the night and shifting to the north and northeast later in night according to the Tricities weather station. The maximum temperature on October 7 was 67° F. and the sky had cleared so that moon watching was again possible and during the period 8:40 to 9:15 p.m. birds were observed at a rate of one bird each 1.4 minutes. The rate for the corresponding period on the night of October 5 was one each 3.1 minutes. The wind was blowing at an estimated 25 miles per hour with occasional gusts up to 50 miles per hour. The temperature at the beginning of observation was 51° F. and continued to decline to 42° F. by 6:00 a.m. on October 8.

Late in the afternoon of October 7, Professor Richard Stevenson called me and told me of the disaster and stated that he and Professor Perry Holt had picked up about fifteen species which they had taken to East Tennessee State College. Mr. and Mrs. J. C. Browning and the writer proceeded to the scene, and in the fading twilight with the aid of a flashlight picked up specimens. Subsequent trips were made to investigate more thoroughly and under more favorable conditions as much as four days later, by which time practically all of the specimens were highly decomposed.

A survey of the situation revealed that fully 90% of the dead birds had fallen southeast of a straight line drawn through the tower from southwest to northeast and at varying distances from the base of the tower but densest within fifty feet of the base. The density decreased as the distance from the tower increased. The distribution of the birds would indicate that as they collided with some portion of the tower they were critically injured and were carried to the ground some distance from the tower by the wind. If there had been no wind, all which were killed by the impact would have dropped to the base of the tower and the preponderance would have been found on the side facing the direction from which they came. This was not the case and the distribution would indicate that the destruction continued throughout the night and shifted with the wind. Since the dead or dying birds were borne by the wind, the distance from the base of the tower at which they came to rest would be approximately proportional to the point of impact from the ground. In other words the higher on the tower the point of impact the farther the bird would be borne, by the wind, from the base of the tower. Several factors would determine the point of landing of each bird.

Since the tower would not present a solid front in any direction, some birds could have passed through the structure unscathed unless they were attracted by the red lights or some other invisible phenomenon such as electrical disturbances in the vicinity of the tower caused by broadcasting. It seems highly improbable that the birds would have been blinded by a single red light bulb as no two lights were closer than six feet of each other. If the birds had been attracted by the lights alone it is likely that dead birds would have been found near the base of the three WJHL radio towers which are equipped with red intermittent lights at three levels. These towers are located 2.6 miles northwest of WJHL-TV tower at an elevation of about 1600 feet in a fairly level area of farm land and they extend 200 feet above ground and are plainly visible from the WJHL-TV tower. The WETB radio tower is located about 1.75 miles to the south, is equipped with red lights at three levels but only the top one flashes and it is also visible from WJHL-TV tower. If red lights alone had been the cause of the mortality some dead birds surely would have been found in the vicinity of the other radio towers as lighting conditions were similar, especially at WETB, except they were at lower elevation and located in relatively flat terrain. Although it was rumored that birds had been killed at these towers and at the Tricities Airport, a visit to the areas proved the rumors baseless. There is no ceilometer at the Tricities Airport and when it is necessary to determine the ceiling it is done by turning on lights only while taking a reading.

The birds which were picked up were brought in to good light, identified and listed. Later on the birds picked up by Professors Stevenson and Holt were delivered to me by Professor Bailey of East Tennessee State College. This group contained three species which we had not found and John Luker added still another making a total of thirty species. The Oven-bird was most numerous with more than 100 individuals with Magnolia Warblers running a close second, with Tennessee, Chestnut-sided and Bay-breasted Warblers in about equal numbers and not far behind the Magnolia Warbler. Red-eyed Vireos were quite numerous followed by American Redstarts. Other species were in relatively small numbers. The rarest bird in the group was the Olive-sided Flycatcher. It had been recorded in our area on only one previous occasion which was on the date of our fall census on the preceding Saturday, October 2. All of the members of the Elizabethton Chapter of T.O.S. were notified of the collection and given an opportunity to observe and examine a greater variety of warblers than can ordinarily be seen in a full day of field observation, as well as several other species which are relatively rare in this area.—LEE R. HERNDON, 1533 Burgie Place, Elizabethton, Tenn.

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LIST OF BIRDS KILLED — The number of birds killed of each species is listed for each locality where the birds were identfied and counted. The following symbols are used: S—Smyrna, N—Nashville, C—Chattanooga, R—Oak Ridge, K—Knoxville. At Johnson City it was impossible to make a count, so the symbol J is used, without any number, for the species identified there. The numbers in parentheses for Smyrna and Nashville are the number of birds banded and released at those places.

Sora Rail—N, 1; K, 4; J. Black-billed Cuckoo—C, 1. Crested Flycatcher—N, 1. Acadian Flycatcher—R, 1. Least Flycatcher—C, 2. Yellow-bellied Flycatcher—C, 4. Wood Pewee—C, 5. Olive-sided Flycatcher—J. Catbird—S, 1; C, 37; J. Wood Thrush—S, 1; C, 23; R, 1; K, 1; J. Olive-backed Thrush—C, 45; K, 11; J. Gray-checked Thrush—C, 19; K, 5; J. Veery—C, 1. White-eyed Vireo—K, 1. Yellow-throated Vireo—S, 1; C, 11; K, 3; J. Blue-headed Vireo—C, 2. Red-eyed Vireo—S, 3; N, 7 (3); C, 22; R, 37; K, 26; J. Philadelphia Vireo—S, 4 (2); N, 3 (1); C, 27; K, 5. Black and White Warbler—S, 6; N, 13 (3); C, 25; R, 35; K, 8; J. Swainson's Warber—R, 1. Worm-eating Warbler—J. Tennessee Warbler —S, 14 (1); N, 50 (11); C, 35; R. 45 (estim.); K, 25; J. Nashville Warbler—C, 1. Parula Warbler—J. Magnolia Warbler—S, 17 (3) N, 66 (15); C, 88; R, 163; K, 15; J. Cape May Warbler—C, 1; J. Black-throated Blue Warbler—J. Black-throated Green Warbler—S, 5; N, 12 (3); C, 10; K, 6. Blackburnian Warbler—S, 2; N, 4 (3); C, 1; R, 11; K, 7; J. Chestnut-sided Warbler—S, 6 (3); N, 30 (11); C, 15; R, 46; K, 18; J. Bay-breasted Warbler—S, 5; N, 8 (7); C, 10; R, 20; K, 13; J. Pine Warbler—R, 1; J. Palm Warbler—C, 2; J. Ovenbird—S, 12 (1); N, 37 (3); C, 92; R, 37; K, 81; J. Northern Waterthrush—N, 1; K, 2. Kentucky Warbler—C, 2; K, 1. Mourning Warbler—N, 1. Yellow-throat—S, 3 (1); N, 1; C, 14; R, 9 (estim.); K, 2; J. Yellow-breasted Chat—C, 5; R, 1. Hooded Warbler—C, 10; R, 7; K, 6; J. Wilson's Warbler—R, 2; J. Canada Warbler—N, 1; C, 2; K, 2. Redstart—S, (1); N, 3; C, 14; R, 2; K, 3; J. Scarlet Tanager—S, 1; N, 1; C, 14; R, 1; K, 14; J. Summer Tanager—S, 1; N, 1; C, 2; K, 2; J. Rose-breasted Grosbeak—C, 2; R, 20; K, 2; J. Indigo Bunting—S, 5; N, 12; C, 64; R, 13; K, 4; J. Dickcissel—N, 2. Savannah Sparrow—R, 1. Swamp Sparrow—C, 7. Song Sparrow—R, 1.

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Keep the T.O.S. going by promptly paying your 1955 dues. If you are a chapter member, chapter treasurers will collect your dues and send them in. If not, send them directly to the T.O.S. Treasurer, Lawrence C. Kent, 1896 Cowden Avenue, Memphis 4, Tenn. Dues are $1.50, which includes subscription to THE MIGRANT. Library and out-of-Tennessee subscriptions are $1.00. Please inform the Treasurer of any change of address.

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IMPORTANT NOTICE TO T.O.S. MEMBERS

It has been suggested that a change be made in Article V, Sec. 1, of the T.O.S. constitution which now reads: "The Society shall hold an annual meeting each spring at or near Nashville . . . ." Because of the growth of the Society it might be better to omit the words "at or near Nashville." This proposed change will be considered at the Annual Meeting in May.—MURIEL MONROE, President, T.O.S.

1954 Fall Migration Count of Hawks

By FRED W. BEHREND

It is pleasing to report that all chapters of T.O.S. participated in the 1954 Fall migration count of hawks conducted under the auspices of the U. S. Fish and Wildlife Service. First-time participation by the Bristol, Chattanooga, and Lebanon chapters resulted in an increase in the number of observers to approximately fifty.

Substantial territory in the central part of the Southern Appalachian Mountain System in Tennessee, all the way southwestward to near the Alabama and Georgia borders, and in neighboring North Carolina, Virginia, and Kentucky, was covered. Incidental to trips into Mississippi and Arkansas, Mrs. Ben B. Coffey, Jr., of the Memphis Chapter watched briefly for hawks at Blue Mountain in Mississippi and in territory in Arkansas approximately 125 miles northwest of Memphis.

This year's count turned out to be more successful than hoped for in view of unfavorable factors such as west wind (not conducive to Broad-winged flight) on weekend target dates (September 19 and 26), consecutive days of rain and low clouds (September 20 and 21) in at least the northeastern part of the territory, unseasonable thunderstorms and showers at various times (September 29, 30, October 1), and, last but not least, coverage of a good many attractive localities on the target dates not quite coming up to expectation. Had the weekend dates of September 18-19 and 25-26 solely been relied upon as observation periods, the count would have been a failure. Observation in between weekends, especially by Greeneville, Knoxville, and Nashville chapter members and the writer, under more favorable wind and weather conditions, counter-balanced the aforesaid unfavorable factors.

The total number of Broad-winged Hawks listed during the period of August 29 to October 3 amounted to 1920, more than double the number of the preceding year. On two days the total of Broad-wings counted exceeded 400 and on one day each 300 and 200. Other species of hawks were listed from August 15 to November 7 as follows: Sharp-shinned, 49; Cooper's, 34; Red-tailed, 69; Red-shouldered, 13; Bald Eagle, 2; Marsh, 14; Osprey, 6; Sparrow Hawk, 17; Duck Hawk, 2; unidentified accipiters, 16; unidentified buteos, 110; unidentified falcons, 11; unidentified as to family, 41; a total of 384. This number, combined with that of Broad-wings listed, accounts for a total of 2,304 predators observed during the 1954 Fall migration season. The accompanying table of observations and lists of localities and observers contain complete information with respect to the Broad-winged count. It is regretted that lack of space prevents publication here of detailed information concerning the other species listed.

Appraising the total of observations during the past five Fall migration seasons, it is the writer's definite conclusion that migration of Broad-winged Hawks along practically all the major ridges of the central part of the Southern Appalachian Mountain System, and secondary ones

COUNTS OF BROAD-WINGED HAWKS DURING FALL MIGRATION 1954

LOCALITIES

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	Total
Aug. 29	1 a																																		1
Sept. 1	2 b																																		2
3	2 a																																		2
4		3 a	2 c																																5
5	1 a			4 c																															5
6				1 c	1 d																														2
12						8 e																													8
17						5 f																													5
18		19 g					33 a	5 h																											57
19									8 a																										8
21										38 i																									38
22						33 j					190 a																								223
23												51 a	13 k																						64
24														225 e	151 a&l*	7 a	19 k																		402
25										32 i			18 k					69 m	6 m	173 a	55 n	11 o													364
26																							20 a	1 c	36 p										57
27																										66 a									66
28																											7 f	33 a							40
29																													13 q	7 r	39 s				59
30																															403 a				403
Oct. 1																																1 a			1
2					1 d																												11 t	76 a	88
3						4 f								14 u																				2 a	20
Total	6	22	2	5	2	50	33	5	8	70	190	51	31	239	151	7	19	69	6	173	55	11	20	1	36	66	7	33	13	7	442	1	11	78	1920

* a = 137

as well, takes place regularly to a very much greater extent than is manifest, and that the number of these birds coming our way each Fall probably amounts to several times that reported on the present count.

Appreciation is expressed here to all members of T.O.S. who took part in the count, to the guests who assisted, to Mr. Chandler S. Robbins, who, ever helpful, lent a hand in its preparation, and to Forest and Park Service supervisors and personnel in Tennessee, Virginia, and Kentucky, who obligingly supplied information solicited by participants in the count.

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KEY TO LOCALITIES

A—Foothills of Holston Mountain, n. e. of Elizabethton, Carter County, Tennessee.
B—Holston Mountain Fire Tower, n. e. of Elizabethton, Carter County, Tennessee.
C—Highway No. 213, n. e. of Marshall, Madison County, North Carolina.
D—Deep Gap—Mt. Mitchell in Black Mountains, Blue Ridge Parkway, Yancey County, North Carolina.
E—Hills northwest of Elizabethton, Carter County, Tennessee.
F—Camp Creek Bald Fire Tower on main crest of Appalachian Mountains, Greene County (Tenn.) and Madison County (N. C.).
G—Beech Mountain near Blue Ridge, n. w. of Grandfather Mountain, Avery County, North Carolina.
H—House Mountain, n. e. of Knoxville, Tennessee.
I—Clinch Mountain Fire Tower, n. w. of Mendota, Russell-Washington Counties, Virginia.
J—Clinch Mountain, n. e. of Knoxville, Tennessee.
K—Black Mountain, at The Double, highest point in Kentucky, Harlan County, Kentucky.
L—Pine Mountain Fire Tower in Kentenia State Forest, n. of Putney, Harlan County, Kentucky.
M—Sunset Rock—Cumberland Plateau, 2 miles w. of Bon Air, White County, Tennessee.
N—Clinch Mountain Fire Tower, s. e. of Kyles Ford, Hawkins County, Tennessee.
O—Powell Mountain Fire Tower, s. of Jonesville, Lee County, Virginia.
P—Stone Mountain, w. of Pennington Gap, Lee County, Virginia.
Q—Cumberland Mountain State Park, s. of Crossville, Cumberland County, Virginia.
R—Iron Mountain and Gap Creek Mountain, s. e. of Elizabethton, Carter County, Virginia.
S—Rich Gap on Walnut Mountain, s. e. of Elizabethton, Carter County, Tennessee.
T—Cumberland Mountain (White Rock) Fire Tower, n. w. of Ewing, Lee County, Virginia, and on Kentucky (Harlan County) line.
U—Pleasant Hill, Cumberland Plateau, Cumberland County, Tennessee.
V—Bee Rock, Cumberland Plateau, 2 miles west of Monterey, Putnam County, Tennessee.

W—Pine Mountain Fire Tower in Kentucky Ridge State Forest, s. w. of Pineville, Bell County, Kentucky.

X—Hills above Tennessee River, s. of Knoxville, Tennessee.

Y—Elder Mountain, divided from Signal Mountain by Tennessee River, n. w. of Chattanooga, Tennessee.

Z—Cumberland Mountain (McLean Rock) n. of Speedwell, Claiborne County, Tennessee.

AA—Rich Mountain Fire Tower on main crest of Appalachian Mountains, Greene County (Tenn.) and Madison County (N. C.).

BB—Walden Ridge (Cumberland Escarpment)—Mt. Roosevelt Fire Tower w. of Rockwood, Roane County, Tennessee.

CC—Walden Ridge Fire Tower, n. w. of Morgan Springs, Bledsoe County, Tennessee.

DD—Cumberland Plateau, escarpment west of Sequatchie Valley, n. w. of Pikeville, Bledsoe County, Tennessee.

EE—Cumberland Plateau Fire Tower in Fall Creek Falls State Park, Van Buren County, Tennessee.

FF—Walden Ridge (Cumberland Escarpment) Fire Tower, n. w. of Daisy, Hamilton County, Tennessee.

GG—Siam Valley, e.-s.e. of Elizabethton, Carter County, Tennessee (lower end of Iron Mountain).

HH—Chilhowee (Beans) Mountain, Oswald Dome Fire Tower, east of Benton, Polk County, Tennessee.

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KEY TO OBSERVERS

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The 1954 Christmas Season Bird Counts

By T.O.S. MEMBERS

The outstanding points of this past Christmas bird count were the first record of a White-winged Crossbill in Tennessee and the largest total of species ever recorded in the State-wide reports of Christmas counts. The observation of White-winged Crossbills is described below in the notes from Memphis. The total number of species reported this year is 122, six more than the previous record of 1951. A wintering Louisiana Waterthrush at Gatlinburg made the first time for this species on Christmas Counts, and the following seven species were reported for only the second time: Green Heron, Black-crowned Night Heron, American Rough-legged Hawk, Sprague's Pipit, Evening Grosbeak, Smith's Longspur, and Snow Bunting.

The counts are summarized in the descriptions and the table. For lack of space it was impossible to include the full reports of two counts made by Fred W. Behrend, of Elizabethton. One of these was made on Roan Mountain, from 3750 to 6189 feet elevation, on Jan. 1, 1955, when he saw 10 species including 4 Evening Grosbeaks at 6000 feet and 13 Snow Buntings at about the same elevation. The other was made on Big Bald Mountain from 3400 to 5516 feet, on Jan. 2, 1955, when he saw 12 species including 2 Fox Sparrows at above 5000 feet and one Snow Bunting near the top of the bald. These were the only Snow Buntings reported.

Northern finches are coming south in unusual numbers and variety this winter. Fred Behrend has seen Evening Grosbeaks since the middle of November and Snow Buntings since early December on Roan Mountain. Evening Grosbeaks have been present in Gatlinburg (see the reports below for the Great Smoky Mountains). Evening Grosbeaks and a Snow Bunting have been reported from Nashville. Pine Siskins have been seen in several places and the Whitewinged Crossbill record at Memphis is a "first". It is impossible to give more details of these reports in this issue, so they will be summarized with more information, we hope, in the March issue of THE MIGRANT. We encourage as much field work as possible for the rest of the winter to learn more about these winter visitors.

In the table and descriptions that follow, the localities are listed from west to east. The details of the separate counts are included under the "Information on the Counts"; lack of space prohibited listing all of the participants. For additional information on records marked with an asterisk (*) in the table, see the paragraphs containing the information on the locality.

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INFORMATION ON THE COUNTS

MEMPHIS, TENN. — (1953 areas in general; wooded bottomlands 27%, deciduous woodlands including city parks 25%, pastures, airports and farms 25%, island river thicket and river's edge 3%). Dec. 26, 1954; 6:40 a.m. to 5 p.m. Cloudy; temp. 43 to 64, wind SE, 9-18 m.p.h. 26

observers in 8 parties. Total party-hours 98 (76 on foot, 22 by car, total party-miles 211 (69 on foot, 142 by car). Total, 75 speciies, about 170, 286 individuals. Mr. and Mrs. Ben B. Coffey, Jr., (compilers), 672 North Belvedere Blvd., Memphis 7.

The President Island blackbird bird roost was abandoned this year. An estimated 70,000 Starlings, 20,000 Red-wings, 70,000 Grackles and 2500 Robins were roosting in Elmwood Cemetery; these probably include all of these species seen during the day. 53 Cedar Waxwings were seen there on Dec. 31, but were missed on the 26th. The Sharp-shinned Hawk was identified by Ben Coffey; one American Rough-legged Hawk by Harry Landis and one by R. D. Smith and H. H. Wilcox; Fish Crows by Ben Coffey, Charles Marcus, and Edwin Poole; Tree Sparrow by E. M. King; the Sprague's Pipits and Smith's Longspurs by Mrs. Coffey, S. J. Rini, and Orval Wood at the Penal Farm where they returned this year in reduced numbers; and the Harris's Sparrow by four parties, including three 1953 locations. The number of White-throated Sparrows totaled 1737.

The two White-winged Crossbills were males seen along the bank of the small lake in Riverside Park. The first one was was watched at the water's edge from about 75 feet thru 8 x 30 and 7 x 50 binoculars, with the coloring showing plainly on the rays of the early afternoon sun. As the three observers (Rose Woolridge, Lawrence Kent, and Nelle Moore) moved in for a closer look, the bird flew into a young oak beside the spillway. There it remained for more than five minutes, during which time the distinctive shape of the bill was carefully noted. It was soon joined by another male, and for a while the observers were able to get both birds in their glasses at the same time.

There is an old record of the White-winged Crossbill for Little Rock, Ark., but apparently this is the first Tennessee record.—NELLE MOORE.

REELFOOT LAKE—(Same area as in the past; open water 20%, marsh 15%, wooded bottoms 20%, wooded hillsides 15%, fields and farms 18%, roadside 12%). Jan. 1, 1955; 6:30 a.m. to 5:30 p.m. Intermittent rain a. m., cloudy to clear p.m.; temp. 57 to 64; wind south, 0-4 m.p.h. 12 observers in 5 parties. Total party hours 47 (foot 33, car 4, boat 10), total party miles 127 (foot 30, car 80, boat 17). Total 82 species, about 5 million individuals. Mr. and Mrs. Howard Barbig, Route 10, Box 424, Memphis, Tenn. (compilers).

The Blackbird flight to the roosting areas was greater than ever before seen by the parties. The estimates, which were all conservative, were: Starling, 250,000; Red-winged Blackbird, 4 million; Grackle, 800,000; Cowbird, 50,000. Other species seen in large numbers were: Mallard, 2100; Lesser Scaup, 1000; Crow, 1100.

JOHNSONVILLE, TENN.—(Centering at Johnsonville and including parts of the Duck River and Kentucky Lake in the Tennessee National Wildlife Refuge; open water 50%, woodland 5%, brushland 5%, open field 38%, urban 2%). Jan. 2, 1955; 7:30 a.m. to 4:30 p.m. Extremely foggy until 9 a.m., clear afterwards; temp. 39 to 63; wind E to NE, 0 to 5 m.p.h. 18 observers in 5 parties. Total party-hours 33 (28 on foot, 4 by car, 1 by plane) total party-miles 160 (18 on foot, 72 by car, 70 by plane). Total, 79 species, about 35,250 individuals. Eugene Cypert, Tennessee National Wildlife Refuge, Paris, Tenn. (compiler)

The numbers estimated for the following species were: Canada Goose, 2500; Mallard, 12,000; Black Duck, 2000; Gadwall, 2500; Baldplate, 1500; Pintail, 2500; Ring-necked Duck, 1500; Hooded Merganser, 3000; Ring-billed Gull, 1500; Red-winged Blackbird, 3000.

NASHVILLE, TENN.—(Same localities and terrain as last 4 years plus Bush's lake). Dec. 26, 1954; 6:30 a.m. to 5:00 p.m. Clear and visibility good; temp. 30 to 60; wind very light; ground bare and frozen at start. No water except in creeks. 23 observers in 7 parties. Total party-hours 58 (48 on foot, 10 by car), total party-miles 120 (32 on foot, 88 by car). 78 species, 6109 individuals. Albert F. Ganier (compiler)

Water birds were seen on Cumberland River, Radnor Lake (85 acres), and Bush's Lake (20 acres). The Night Herons (1st winter record) and Least Sandpipers (2nd winter record) had been present at Bush's Lake some weeks. The Horned Grebes (1st winter record) were on Cumberland River below Clee's Ferry. Thrasher had remained at Laskey feeding station some time. Robins and "blackbirds" were just returning from southward. No large roosts in area as yet.

LEBANON, TENN.—(Same area as in previous years). Jan. 1, 1955; 10 a.m. to 12:30 p.m., 3 to 4 p.m. Cloudy, temp. about 60. Total 46 species, about 3224 individuals. The number of Robins reported was 1600. Dixon Merritt, Lebanon, Tenn. (compiler).

CHATTANOOGA, TENN.—(Same area as in previous years). Jan. 2, 1955. Foggy until 10 a.m., then clear; temp. 48 to 70; wind, 0-8 m.p.h. 12 observers in 6 parties. Total party-hours 32 (25 on foot, 7 by car), total party-miles, 124 (25 on foot, 99 by car). Total, 64 species, about 3,000 individuals. Mrs. Eugene M. West, 1624 S. Clayton Ave., Chattanooga 4, Tenn. (compiler). Seen the previous day at the compiler's home were 20 Pine Siskins.

GREAT SMOKY NATIONAL PARK, TENN.—N.C.—(Same area as 1937 and following years). Jan. 2, 1955; 6:30 a.m. to 6:00 p.m. Mostly clear; temp. 38 to 65; wind variable, up to 25 m.p.h. at high altitudes; ground bare in lowlands with some snow persisting in shaded places at higher elevations. 30 observers in 12 parties. Total party-hours 73 (62 on foot, 11 by car), total party-miles 154 (58 on foot, 96 by car). Total, 60 species, about 1,999 individuals. Arthur Stupka, National Park Service, Gatlinburg, Tenn. (compiler).

The 185 chickadees reported includes both Black-capped and Carolina Chickadees. The Louisiana Waterthrush, the first winter record for this area, has been observed almost daily since Dec. 8 along a small stream in Gatlinburg; on the day of the count it was observed by Joe Manley, Arthur Stupka, and James T. Tanner at very close range. Five Evening Grosbeaks were observed on Dec. 18 by Joe Manley; beginning Dec. 22 he and others have seen them daily, up to 100 in a flock.

GREENEVILLE, TENN.—(Same area as in previous years). Dec. 27, 1954; 7 a.m. to 5 p.m. Clear; temp. 28 to 60; wind 0-5 m.p.h. 9 observers in 4 parties. Total party-hours 36, total party miles 133 (107 by car, 26 on foot). Total, 55 species, about 3818 individuals. Mrs. Richard Nevius, Route 1, Greeneville, Tenn. (compiler).

The Green Heron was reported by Mr. and Mrs. Alfred Irvine, the Duck Hawk by Richard Nevius, the Brown Thrashers and Pine Warblers by Mrs. Chester Darnell and Dwain and Nolan Darnell, the Fox Sparrow by J. B. White, and the Vesper Sparrow by the Irvines. The number of Crows reported was 1500.

KINGSPORT, TENN.—(Centering on Pactolus, including Bays Mtn.; residential 10%, fields 20%, deciduous woods 40%, ponds and lakes 30%). Dec. 26, 1954; 7:30 a.m. to 5:30 p.m. Clear; temp. 20 to 60; no wind; thin ice on ponds, lake open, no snow on ground. 3 observers in 3 parties. Total party-hours 18 (16 on foot, 2 by car), total party-miles 56 (6 on foot, 50 by car). Total 43 species, about 4459 individuals. Mrs. Robert M. Switzer, 1620 Fairidge Place, Kingsport (compiler). The number of Starlings seen was about 4000.

ELIZABETHTON, TENN.—(Same area as in previous years). Jan. 2, 1955; 7:30 a.m. to 5:30 p.m. Partly cloudy to clear; temp. 48 to 60; wind 0-10 m.p.h. 15 observers in 7 parties. Total party-hours 39 (30 on foot, 5 by car, 4 by boat), total party-miles 195 (26 on foot, 153 by car, 16 by boat). Total 59 species, about 2762 individuals. Dr. and Mrs. L. R. Herndon, 1533 Burgie Place, Elizabethton, Tenn. (compilers).

	Memphis	Reelfoot	Johnsonville	Nashville	Lebanon	Chattanooga	Great Smokies	Greeneville	Kingsport	Elizabethton
Horned Grebe	—	—	—	*5	—	—	—	—	—	3
Pied-billed Grebe	9	18	4	3	—	3	—	—	—	5
Double-cr. Cormorant	—	10	200	—	—	—	—	—	—	—
Great Blue Heron	1	60	48	2	1	1	—	1	—	—
Green Heron	—	—	—	—	—	—	—	*1	—	—
Black-cr. Night Heron	—	—	—	*6	—	—	—	—	—	—
Canada Goose	—	900	*	—	—	—	—	—	4	—
Snow Goose	—	—	1	—	—	—	—	—	—	—
Mallard	11	*	*	60	—	100	—	—	—	34
Black Duck	—	1	*	—	—	100	—	7	—	3
Gadwall	—	5	*	—	—	—	—	—	—	3
Baldplate	—	3	*	6	—	4	—	—	—	2
Pintail	—	54	*	—	—	—	—	—	2	—
Green-winged Teal	—	3	700	2	—	—	—	—	—	—
Blue-winged Teal	—	11	—	—	—	—	—	—	—	—
Shoveller	—	165	1	—	—	—	—	—	—	—
Wood Duck	—	5	—	—	—	—	—	—	—	—
Redhead	—	—	—	—	—	—	—	—	—	1

Ring-necked Duck	35	95	*	18		20				
Canvasback	25	2	1	12						
Lesser Scaup Duck	250	*	6	2				9		2
American Golden-eye				1						
Bufflehead			4							2
Ruddy Duck		49								
Hooded Merganser			*							4
American Merganser			100							1
Turkey Vulture	6	2		1	12	1	1	12	1	
Black Vulture				13	20	2		2		
Sharp-shinned Hawks	*1									
Cooper's Hawk	2	1	2	1				2	1	3
Red-tailed Hawk	17	8	16	7	2	4	3	1	1	1
Red-shouldered Hawk	7	12	4	4		2			2	1
Amer. Rough-leg. Hawk	*2									
Golden Eagle			1							
Bald Eagle		8	15							
Marsh Hawk	4		3	4		2	1			1
Duck Hawk			2		2			*1		
Sparrow Hawk	18	7	5	24		3	4	3	2	5
Ruffed Grouse							2			
Bob-white	78	1	1	21			4	4		1
Coot		15	4	2		1				
Killdeer	181	4	44	118	10	54	4	13	5	27
Wilson's Snipe	3	1		3				3		1
Least Sandpiper				*4						
Herring Gull		2	5			105				
Ring-billed Gull	40	1	*			20				
Mourning Dove	134	19	90	148	62	217	20	287	3	193
Screech Owl	1	1	1	1	1		2			
Horned Owl		1		2	2		2			
Barred Owl	2	3		1						
Short-eared Owl				2						
Belted Kingfisher	1	1	4	15		2	4	5	1	13
Flicker	79	57	7	70	2	17	5	13	6	19
Pileated Woodpecker	1	8	6	19	3	3	16	2	2	4
Red-bellied Woodpecker	26	50	7	46	2	17		5	1	1
Red-headed Woodpecker	10	6				9		3	1	
Yellow-bellied Sapsucker	9	3	5	13	1	4	4	1	1	4
Hairy Woodpecker	14	6	1	12	3	3	5			4
Downy Woodpecker	57	67	17	111	5	14	25	12	4	19

	Memphis	Reelfoot	Johnsonville	Nashville	Lebanon	Chattanooga	Great Smokies	Greeneville	Kingsport	Elizabethton
Phoebe	3		1	4	1	3	10	7	3	11
Horned Lark	193		12	235	35	20	7	30		7
Blue Jay	295	23	10	40	12	104	19	29	29	35
Raven							2			
Amer. Crow	47	*	500	256	150	111	123	*	24	767
Fish Crow	*14									
Black-cap. Chickadee							*			
Carolina Chickadee	181	169	20	224	13	48	*185	67	19	112
Tufted Titmouse	68	107	8	115	16	65	35	56	14	43
White-br. Nuthatch	2	13	2	2	1	19	5	5	2	
Red-breasted Nuthatch					1		15			2
Brown Creeper	2	3		9	1	1	15		2	1
House Wren		1								
Winter Wren	11	6	1	13		2	6	5		3
Bewick's Wren	2	1	2	5	5	1	1	1	1	
Carolina Wren	106	74	14	84	5	42	37	50	17	45
Long-billed Marsh Wren		1	1							
Short-billed Marsh Wren		2								
Mockingbird	119	21	12	95	20	46	6	53	5	40
Brown Thrasher	23	7		*1		11		*4		
Robin	*	43	8	541	*	103	138	12	2	16
Hermit Thrush	23	5		14		2	13			8
Bluebird	30	27	10	154	15	47	44	56	17	77
Golden-crowned Kinglet	14	38	2	17		3	19			
Ruby-crowned Kinglet	11	6		3	2	1	1			
Water (Amer.) Pipit	20		6	2		5				
Sprague's Pipit	*3									
Cedar Waxwing			46	22		282	31	35	32	46
Loggerhead Shrike	38	19	7	12	3	11	5	3	1	6
Starling	*	*	73	264	600	384	102	380	*	201
Myrtle Warbler	46	8	1	98	15	27	1	22	10	37
Pine Warbler						9	1	*4		1
Louisiana Waterthrush							*1			
House Sparrow	156	202	18	300	147	45	62	80	51	142
E. Meadowlark	196	30	38	156	40	161	25	34	9	78
Red-winged Blackbird	*	*	*	109			1			

Rusty Blackbird	....	....	5	2	....	6	....	100	....	....
Purple Grackle	*	*	400	291	100	3	....	3	....	....
Cowbird	153	*	....	26	150	....	....	....	....	....
Cardinal	570	265	45	380	45	108	41	106	20	99
Evening Grosbeak	....	....	....	....	....	....	*33	....	....	....
Purple Finch	64	9	3	13	20	19	55	10	2	12
Pine Siskin	....	....	....	10	....	....	7	....	....	....
Goldfinch	348	178	152	775	4	54	254	330	56	181
Red Crossbill	....	....	....	....	....	....	1	....	....	....
White-winged Crossbill	*2	....	....	....	....	....	....	....	....	....
Red-eyed Towhee	44	4	12	103	5	84	12	26	21	26
Savannah Sparrow	88	....	25	49	....	....	8	....	....	....
Leconte's Sparrow	....	2	1	....	....	....	....	....	....	....
Vesper Sparrow	....	1	7	....	....	....	1	*1	....	....
Slate-colored Junco	620	156	80	234	34	79	200	85	17	85
Tree Sparrow	*1	1	....	2	15	....	....	....	....	....
Chipping Sparrow	....	....	....	....	....	5	....	....	....	....
Field Sparrow	203	43	13	140	35	159	210	109	6	119
Harris's Sparrow	*11	....	....	....	....	....	....	....	....	....
White-crowned Sparrow	99	20	24	80	....	6	....	76	6	23
White-throated Sparrow	*	528	130	230	3	170	89	66	22	93
Fox Sparrow	87	22	6	1	....	....	4	*1	....	5
Swamp Sparrow	146	104	120	35	....	1	2	....	....	3
Song Sparrow	431	36	125	205	2	55	70	84	34	79
Lapland Longspur	196	....	....	....	....	....	....	....	....	....
Smith's Longspur	*5	....	....	....	....	....	....	....	....	....
Total Species	75	82	79	78	46	64	60	55	43	59

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CORRECTION—The following corrections should be made in the paper by Katherine A. Goodpasture in the September 1954 MIGRANT. In line 11, page 44, "Yellow-throated" should be "Yellow-breasted" Chat, and the date Oct. 6 should be Oct. 4.

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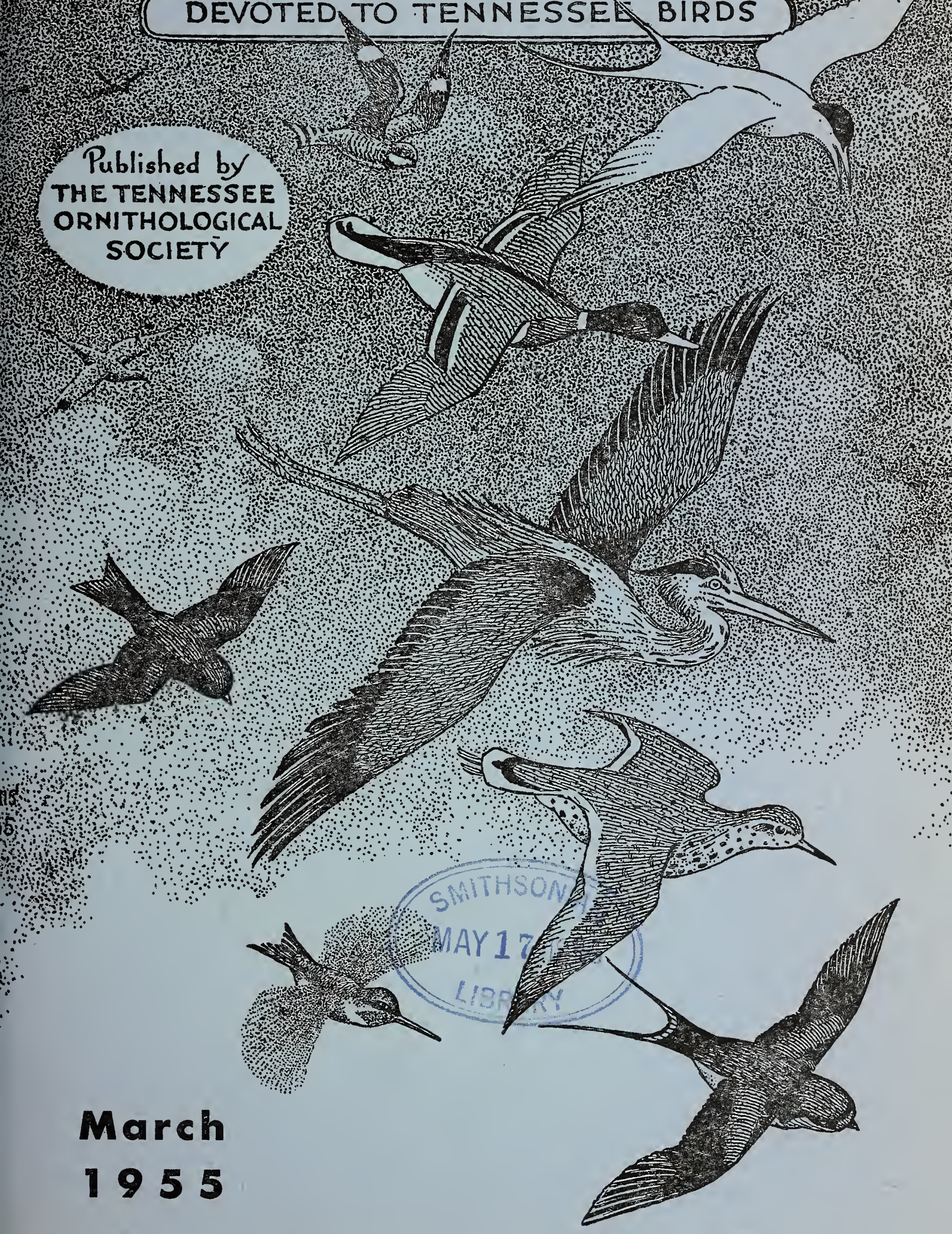

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Status of the Wild Turkey in Tennessee

By VINCENT SCHULTZ

This paper is an attempt to assemble information on the status of the Wild Turkey (**Meleagris gallopavo silvestris** Vieillot) in Tennessee. The literature contains only scanty references to the distribution and abundance of this bird in various sections of the State, and to the writer's knowledge, no life history data. Rhoads (1895) remarked only that the turkey is found in considerable numbers in secluded areas of the Cumberland Plateau and "Great Smoky Range" (Unaka Range?) and also that they occur in Haywood County. Howell (1910) mentioned that an ever persecuted and declining turkey population occurs on Walden Ridge. He reported turkeys on the ridge west of Soddy in 1908. Ganier (1928), attempting to summarize the status of the turkey in Tennessee, stated: "After persistent inquiry and reports of illegal 'killings,' since it is now protected, it would seem that the turkey population is confined to a few in and about Lauderdale County near the Mississippi River, a small flock on Reelfoot Lake (not heard from recently), scattered flocks in the tier of counties bordering the east side of the Tennessee River, a few in the upper Cumberland Mountains in and north of White County and a remnant among the Great Smoky Mountains along the Carolina line." McClanahan (1940), making no reference to his source of information, presented a map showing the original and present breeding range of the wild turkey. The present range was shown as including the Cumberland Plateau, portions of the east Tennessee Valley, Unaka Range, western Highland Rim, western drainage of the west Tennessee River, southern tier of counties extending along the state line from the west Tennessee River to the Mississippi River, and northwestern Tennessee. The validity of this distribution is questionable although it does include the current range in the state. Calhoun (1941) remarked, " . . . a few wild turkey remain in McNairy and Hardeman Counties . . . " Wing (1940) published a paper on a game survey of the area roughly between the Holston River and the Tennessee-Kentucky state line. He stated that the turkey has been "driven out" of this region and that it was reported that they still occurred on the Cumberland Plateau. He was told that a turkey was killed about 1927 in Long Hollow on the Powell River and that they still persisted there although he could find no sign of them. It was also reported that a gobbler passed through "Cove Creek Peninsula" during the winter of 1936-37 and that turkeys occurred on Lone Mountain and adjacent ridges until about 50 years ago. Caldwell **et al.** (1947), in a booklet for school children, stated that there were still a few Wild

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TABLE 1.—Status of the Wild Turkey in Tennessee as determined by personal interview of heads of farm households.

	Farming Type															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Number of Respondents	27	97	489	69	131	261	200	139	116	538	306	137	57	862	131	3560
Relative Sampling Error[1]	16.4	7.6	5.0	6.7	6.8	4.6	5.9	6.7	8.8	3.2	5.7	7.7	10.2	3.0	6.6	1.5
Number reporting turkey on farm	0	0	7	0	0	4	0	2	0	0	1	14	1	1	5	35
Percent reporting turkey on farm	0	0	1	0	0	2	0	1	0	0	0	10	2	1	4	1
Relative sampling error[1]	—	—	62.5	—	—	56.6	—	101.3	—	—	103.4	22.4	96.6	86.6	54.2	19.4
Number of Respondents[2]	16	78	341	58	94	184	158	120	95	417	239	116	45	724	122	2807
Number reporting turkey on sampling area	0	0	3	0	0	5	0	3	0	0	2	29	3	8	11	64
Percent reporting turkey on sampling area	0	0	1	0	0	3	0	3	0	0	1	25	7	1	9	2

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[1] Computed by use of analysis of variance, with computations by the Iowa State College Statistical Laboratory.

[2] Includes only respondents who have lived on area, or not over 2 miles from area, during the last five years.

Turkeys on the Cumberland Plateau, in the Unaka Range, and in Wayne and Hardin counties. Mosby (1949) attempted to delineate the occupied turkey range and establish population numbers by correspondence with personnel of the state game department. He was informed that an estimated population of 5,000 turkeys existed in 1947 on an occupied range of 1,216 million acres and that the population was static or decreasing. Experience of the writer has shown that such estimates are often unreliable and misleading and that reliable information for Tennessee was not available in 1947.

Lack of specific information on the distribution of the game and furbearing mammals of the state made it necessary that the Tennessee Game and Fish Commission conduct a statewide wildlife survey in order to establish sound game management in the State. Primary field work for this project was begun in September, 1950, and was completed approximately 13 months later. The survey procedure reported upon by Schultz (1952, 1954) included a method of sampling known as "area sampling" which permitted computation of sampling errors (Table 1). In brief, the method consisted of a random selection of 1000 "sampling areas" in Tennessee which averaged five indicated dwellings per acre. Farmers (3,560) dwelling upon these areas were interviewed concerning wild animals utilizing their farms and the "sampling areas." Data on the presence of turkeys on farms, "sampling areas," and personal observations are presented in this paper (Table 1, Figures 1 and 2). The hearsay reports are not included in this manuscript but such reports as well as details on personal observations are available in the final report of the survey (Schultz and others, 1954). The sampling errors (Table 1) indicate the adequacy of sampling for the total interviewees and all respondents reporting the Wild Turkey on their farms. The latter are an indication of the relative density and dispersion of the turkey within the farming-type, i.e., the smaller the sampling error, the greater the dispersion and relative density of the Wild Turkey in the farming-type.

In addition to this sampling survey, conservation officers were interviewed by postal questionnaire and project personnel made special attempts to obtain information from "wilderness areas" in the Cumberland Plateau, Unaka Range, western Highland Rim, and Mississippi bottoms. Data obtained by personal interview have been tabulated on a farming-type basis.

The distribution of the 35 respondents reporting the wild turkey on their farm is shown in Figure 1. It should be realized that the farming-type boundaries which are based in civil district boundaries only approximate the natural boundaries of physiographic regions. This fact, as well as difficulties that arose in plotting exact locations of observations, resulted in some observations, particularly on edges of farming-types, appearing in one physiographic region when in reality they belonged in another. This is particularly true adjacent to the Cumberland Plateau. As previously stated, specific locations and dates of these personal observations and hearsay reports are available in the final survey report (Schultz and others, 1954). These data (Table 1, Figures 1 and 2) leave

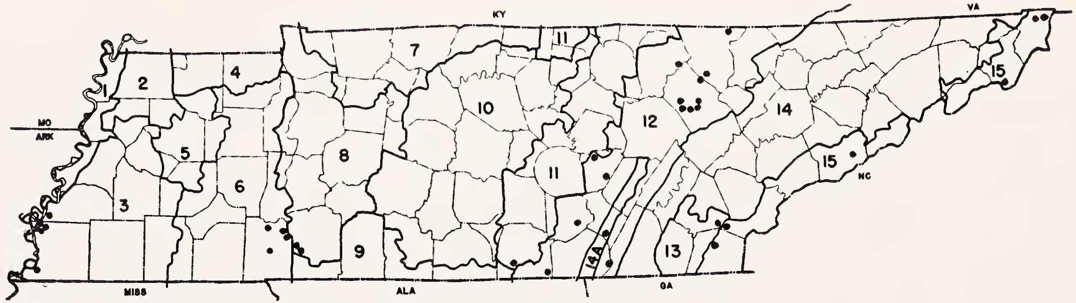
KY
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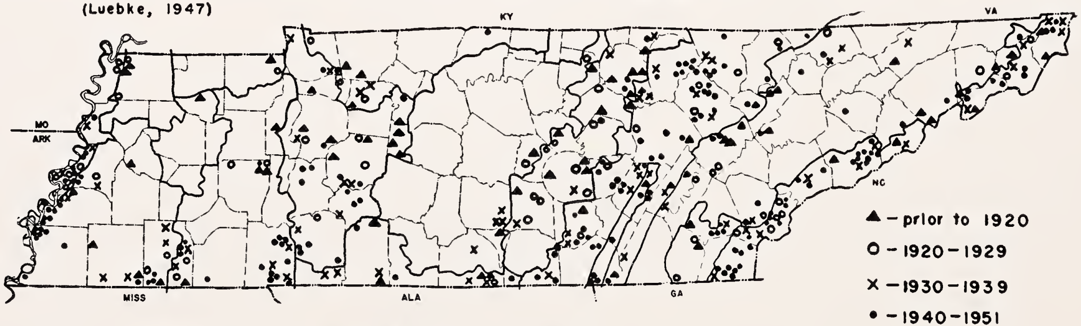
Fig I. Farming-Types and Location of Turkey Reports on Farms, 1950—1951.

1: Mississippi bottoms; 2—6: Plateau of West Tennessee; 7—9, 11: Highland Rim; 10: Central Basin; 12: Cumberland Plateau; 13—14: Valley of East Tennessee; 14A: Sequatchie Valley; 15: Unaka Range (Luebke, 1947)


KY
VA
NC
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ARK
MISS
ALA
GA
▲ – prior to 1920
○ – 1920–1929
× – 1930–1939
● – 1940–1951

Fig 2. Location of Wild Turkey Observations by Decades.

little doubt that the turkey range is as follows:

> Wild Turkey Range in Tennessee—the Unaka Range of mountains, the Cumberland Plateau, portions of the western Highland Rim, and portions of the Mississippi bottoms.

Altho there is probably a bias because of farmers neglecting to report old observations and an abundance of younger farmers, it appears that the distribution of the observations for different decades gives a picture of the history of the turkey population in the State (Figure 2). As to be expected, it appears that the turkey was decimated first in the better farming regions of the State, i.e., the Central Basin, portions of the Plateau Slope of West Tennessee, northern Highland Rim, and Valley of East Tennessee. Apparently the last flocks in these regions occurred in the valley ridges of the Valley of East Tennessee, and the tributaries of the Mississippi River in West Tennessee, with some still existing in the Hatchie River bottoms. It appears that the turkey was extirpated from the fauna of the Central Basin years ago. The next regions of extirpation or reduction apparently were in the western and eastern Highland Rim with fair populations still existing in portions of the former region. Some birds reported as personal observations are undoubtedly progeny of released birds or the released birds themselves; however, it is doubtful if the degree of restocking in Tennessee would alter the history of the turkey population as presented above.

Altho the survival of released game farm birds is generally known to be poor, it is well to include in this paper restocking records as they may be of value in future taxonomic or life history studies. Mr. A. E. Hyder of the Tennessee Game and Fish Commission has informed the writer that the source of stocked birds is somewhat mixed. The original stock of Commission game farm birds was purchased from the Woodmont Gun Club near Baltimore, Maryland, and also from Mr. Strickland of Kosciusko, Mississippi. The available release records cover the period from 1941 to 1950, inclusive, and probably cover the major portion of the birds released in the State. These records are summarized in Appendix A.

To insure a more adequate coverage of wilderness areas which were inadequately sampled by the sampling method, interviewers questioned persons other than those on "sampling areas." The wilderness areas studied in this way included portions of the Mississippi bottoms, western Highland Rim, Cumberland Plateau, and Unaka Range. The data are not included in either Table 1 or the figures, but are presented in Appendix B.

Conservation officers received a questionnaire on the status of the Wild Turkey in their assigned counties. Officers were requested to indicate the turkey as being common, rare, or absent. An additional request for specific localities was sent to those officers who listed turkeys as rare. In general, the officers' reports agree with those obtained by personal interview. The results are included in Appendix C.

Information on population trends was requested from respondents reporting the wild turkey as present on "sampling areas." Population trends were requested only from persons residing on or within two miles of the area during the last five years. Of the 64 eligible respondents, 13 (or 20 per cent) reported the population up during the last five years; 9 (or 14 per cent) reported down; 9 (or 14 per cent) reported no change; and 33 (or 52 per cent) reported trend as unknown. These small sample sizes as well as the smaller samples for the individual farming-types preclude the drawing of conclusions concerning trends other than that the preponderance of replys of "unknown" emphasizes the need for technical personnel to obtain this information.

In conclusion it is hoped that the data presented in this report, as well as the final survey report (Schultz and others, 1954), will stimulate much needed research in the ecology of the wild turkey in Tennessee.

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APPENDIX A. — Releases of Game Farm Turkeys in Tennessee

The year, site, and number of released game farm birds as reported to the writer are as follows: 1941 — Selmer (Rose Creek), 25; Natchez Trace Park, 75; Decaturville, 75; Reelfoot Lake, 25; Savannah (Harbert Lands), 50; Waynesboro, 75; Stribling Game Preserve, 50; Stewart Forest, 25; Cheatham County Game Farm, 100; Monterey (England Grant), 50; McMinnville (Rockey River), 50; Marion and Franklin Forest, 25; Pickett Forest, 25; Morgan Forest, 25; Bledsoe Forest, 25; Speedwell, 25; Roan Mountain (Laurel Fork), 25; Emory River (Wartburg), 25; Gernt (Jamestown), 25; Etowah (Stars Mountain) , 25; Andrew Johnson Game Refuge, 50; Newport, 25;

Embreeville, 50; Grandview (Jud Cummings), 25; Walden Ridge (Horseshoe), 25; 1942 — Decaturville (Brownsport Furnace), 35; Savannah (Harbert Lands), 30; Waynesboro (Eagle Creek), 35; Catoosa Wildlife Management Area, 160; Newport (Long Creek and French Broad River), 40; Embreeville (Clark Creek), 40; Roan Mountain (Laurel Fork Wildlife Management Area), 40; 1943 — Catoosa Wildlife Management Area, 200; Horseshoe Bend Area, 100; Waynesboro (Eagle Area), 100; Prentice Cooper Wildlife Management Area, 30; Cheatham County Area, 42; 1944 — Catoosa Wildlife Management Area, 200; Prentice Cooper Wildlife Management Area, 200; Shelby State Park, 50; West Tennessee, 25; 1945 — Catoosa Wildlife Management Area, 200; Prentice Cooper Wildlife Management Area, 100; Cheatham County Area, 31; West Tennessee, 40; 1946 — 115 released in fall of 1946 but apparently there is no records; 1947 — Unicoi Wildlife Management Area, 40; Laurel Fork Wildlife Management Area, 30; Johnson County, 30; Hardeman County, 20; Mr. Kirkpatrick (Memphis), 35; 1948 — Johnson County Game Refuge, 30; Laurel Fork Wildlife Management Area, 30; Unicoi Wildlife Management Area, 30; Andrew Johnson Game Refuge, 30; Central Peninsula Wildlife Management Area, 20; Tellico Plains Wildlife Management Area, 30; Prentice Cooper Wildlife Management Area, 40; Hardeman County, 20; 1949 — Johnson County Game Refuge, 35; Laurel Fork Wildlife Management Area, 35; Unicoi Wildlife Management Area, 35; Andrew Johnson Game Refuge, 35; Central Peninsula Wildlife Management Area, 35; Tellico Plains Wildlife Management Area, 35; Prentice Cooper Wildlife Management Area, 35; Catoosa Wildlife Management Area, 50; 1950 — Laurel Fork Wildlife Management Area, 25; Kettlefoot Wildlife Management Area, 25; Unicoi Wildlife Management Area, 50; Pickett State Forest, 30; Oak Ridge, 30; Central Peninsula Wildlife Management Area, 33; Andrew Johnson Game Refuge, 33. The writer has attempted to modify the site records only where abbreviations occurred; otherwise they are presented as reported to him.

APPENDIX B. — Reports of Turkeys from Selected Wilderness Areas

The exclusion of counties from the tabulation does not imply that persons reported no turkeys in those counties; rather they mean persons were not interviewed there.

MISSISSIPPI BOTTOMS: Lake County — trapper captured yearling turkey hen on Rat Island, Reelfoot Lake (1952), two other trappers also observed turkeys here: Lauderdale Counties — two reports of one near Crutchers Lake; Tipton County — present on Siegler Island and three miles west of Drummonds (1952).

WESTERN HIGHLAND RIM: Hardin County — present on Boone Creek and on Whites Creek (1947); Stewart County — seen near Dover (1948), Thorpe (1938), Byrds Creek (1942), Ft. Henry (1938); Wayne County — released in 1947 on Green River, two miles south of Natural Bridge (1935), Barnett Creek (1951), Double Branch Creek (1940), Chalk Creek (1940), Tally Fork (1950), Route 2 Waynesboro (1947), Route 2 Collinwood (1932).

CUMBERLAND PLATEAU: Anderson County — Buffalo Camp (1920), Right Fork (1952), Ligias Fork Creek (1952), Indian Creek (1900), Charleys Branch (1927); Bledsoe County — near Brockdell and Big Brush Creek (1952); Campbell County — Stinking Creek (1927), Walnut Mountain (1950); Claiborne County — Valley Creek (1934), Tackett Creek (1951), Stinking Creek (1948); Cumberland County—Grassy Cove (1943); Fentress County—northeastern portion of county (1951), Poque Creek and Wolf River (none since 1920 or 1930), Rotton Fork Creek (1943), Brooks Creek (1943), Fairview (1940), White Oak Creek (1952), "Wilderness" 1952), Goad (1952); Grundy County—Nigger Den Creek (1952), Savage Creek (1952), Carunger Creek (1952), headwaters of Collins River (1952); Hamilton County—Walden Ridge west of Falling Water (1952), north of Signal Mountain (1952); Marion County—Swecler Cove (1952), Big Fiery Gizzard Creek (1952) Morgan County—headwaters of Emory River (1952); Scott County—Burt (1949), Buffalo Creek (1951), Last Stop (1920), South Sinking Creek (1940), Thomas (1920), south fork of Cumberland River (1950), Brimstone Creek (1951), Leatherwood Bridge (1941), Pickett State Park (1950); Sequatchie County—headwaters of Massey and Cain Creek (1952), Walker Branch (1952), Dry Creek (1952), Savage Creek (1952), Glady Fork Creek (1952), Big Brush Creek (1952); Warren County—High Rock (1925); Morgan State Forest—released in 1943 and moved to Mill Creek; Pickett State Park—released but none present now according to park supervisor.

UNAKA RANGE: Carter County—two persons reported turkeys stocked on Laurel Fork Creek (Dennis Cove) but none seen since 1950, one person reported them present there in 1952, headwaters of Tiger Creek (1952), Holston Mountain (1930); Johnson County—Taylor Valley (1952); Monroe County—two miles above Tallassee Ferry (1952); Polk County—Archville (1952), McFarland (1952), near Turtletown (1952), four miles north of Farner (1952), mouth of Smith Creek (1952); Unicoi County—Rock Creek (1952), headwaters of Martin Creek (1951), Unaka Springs (1952).

APPENDIX C. — Reports of Turkeys from Conservation Officers.

Conservation officers reported the wild turkey as occurring in the following counties. In counties omitted from this list, conservation officers listed the wild turkey as absent, and in counties not followed by parentheses it was listed as common. In counties followed by a location in parentheses they were listed as rare. Additional information was requested of all officers listing the species as rare. Their reply is that enclosed in parentheses. It should be realized that these reports do not necessarily indicate actual observations by the officers. Bledsoe (Falls Creek Falls State Park, Cumberland Plateau, Walden Ridge), Blount (in mountains above Calderwood, near Townsend), Campbell (unknown), Carter (Laurel Fork Wildlife Management Area, Holston Mountain), Cheatham (Cheatham Wildlife Management Area), Claiborne (unknown), Cocke (entire county), Coffee (Brumelon Creek, Red Hill area), Cumberland, Fentress (Clear Fork Creek, South White Oak Creek), Franklin (Cumberland Plateau), Grainger (Norris Lake at Lone Mountain and Union County line, Clinch Mountain, Richland Ridge), Grundy, Hamilton (Walden Ridge, Signal Mountain), Hardin (flatwoods in southeastern part of county, Burnt Church area), Jackson (area between Whitleyville and Clay County), Johnson (Kettlefoot Wildlife Management Area), Lauderdale (Open Lake bottoms), Marion (Prentice Cooper Wildlife Management Area, Sequatchie Cove), Monroe (Tellico Wildlife Management Area), Morgan, Overton (Alpine, Cramford), Pickett (State Park), Polk (Cherokee National Forest), Putnam (east of Monterey along Clarkrange Road), Roane (Walden Ridge), Scott (South Fork River, Jellico Creek), Sequatchie (tops of mountains and gulfs), Sevier, Shelby (Cow Island, Presidents Island), Tipton (northwestern part of Tipton County, near Shelby Forest), Unicoi (Rich Mountain in Unicoi Wildlife Management Area), Union (Central Peninsula Wildlife Management Area), Van Buren, Warren (Long Mountain, Powder Hill gulf), Wayne (head of Indian Creek, Arnold Hollow), White (Bee Creek gulf, Caney Fork gulf).

ACKNOWLEDGMENTS

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Some Interesting Bird Observations on Kentucky Lake

By EUGENE CYPERT, JR.

For the past nine years birds observations on the middle part of Kentucky Lake by personnel of the Tennessee National Wildlife Refuge and by various birding groups and individuals have been reported. From these observations, it is believed that the following are of sufficient interest to be worth reporting:

HOLBOELL'S GREBE (**Colymbus grisegena**). One of these birds was observed February 2, 1948, by C. R. Markley and me near the old mouth of Duck River. It was seen at about 40 yards and was swimming and diving occasionally. There were some mallards nearby which we used for comparison to determine the size of the bird. It appeared nearly as large and, because of its long, straight neck, "taller" than the mallards. We had our glasses and our field guide with us and had ample opportunity to verify our identification. Its sharp, straight bill could be easily seen and the whole bird appeared dingy. The cheeks were some paler than the rest of the head.

I believe there is only one other record of this species for Tennessee; that reported in the Nashville Christmas bird count, 1926 (Migrant 3:42. 1932).

WHITE PELICAN (**Pelecanus erythrorhynchos**). These birds are occasional visitors to Kentucky Lake. Twelve were reported June 6, 1945, at Cuba Landing by Earl Cady, C. R. Markley, and Robert H. Smith. I observed a flock of ten on an island near the old mouth of Harmon Creek in Duck River bottom on July 9, 1948. Thomas B. Dickerson observed two of these birds on Duck River October 10, 1948.

ANHINGA (**Anhinga anhinga**). A few of these birds are regular summer residents in Duck River bottom. Five nests of this species were identified in the Duck River heron rookery on Grassy Lake in 1953.

BRANT (**Branta bernicla**). December 29, 1952, Thomas B. Dickerson observed what he took to be a flock of 19 of these birds in Duck River bottom near Grassy Lake. Mr. Dickerson had been patrolman for the Tennessee National Wildlife Refuge for several years and he was familiar with the more common species of geese and, knowing he had seen something different, referred to his field guide and tentatively identified them as brants. The birds were observed through 8-power glasses while feeding in a field at a distance of about 75 yards. On January 9, 1953, Mr. Dickerson saw what was apparently the same flock of 19 Brants in Duck River bottom near Odum Shanty Pond. By this time he had familiarized himself with the characteristics of the species and was certain of his identification. The birds were feeding in a field and were observed from about 40 yards. Mr. Dickerson noted the relatively small size of the birds and the conspicuous white under parts and he stated that he was close enough to see that the white marks on their necks were "not solid white."

I believe this is the first record of this species in Tennessee.

BLUE GOOSE (**Chen caerulescens**). On July 6, 1951, Mr. Thomas B. Dickerson and James M. Dale observed a flock of two adults and six immatures of this species in Duck River bottom. Mr. Dickerson again reported this flock on July 9 and July 18 and saw them several times after that. It seems likely that this was a family group. Earlier in the year, a farmer had reported a wild goose with goslings in the bottom. If it is assumed that the geese had nested here, it is probable that one member was unable to migrate in the spring. However, all were able to fly at the time of the observations.

This observation is of especial interest because the Blue Goose does not normally nest south of the Arctic.

GREATER SCAUP (**Aythya marila**). This species may be more common on Kentucky Lake than is realized. Because of its similarity to the common Lesser Scaup, it could be easily overlooked. Parker B. Smith identified a Greater Scaup which had been killed by a hunter on the West Sandy arm of Kentucky Lake, December 30, 1946.

OLD SQUAW (**Clangula hyemalis**). This species is a rare winter visitor to Kentucky Lake. I observed a lone female at Sulphur Well, November 12, 1950. John Gibson observed a pair near Paris Landing, March 10, 1950, and a flock of eight near the same locality January 2, 1951.

WHITE-WINGED SCOTER (**Melanitta fusca**). This species is a rare winter visitor to Kentucky Lake. C. B. Markley reported one on the Big Sandy River October 21, 1949. Parker B. Smith reported three in Duck River bottom, January 18, 1954.

GOLDEN EAGLE (**Aquila chrysaetos**). Golden Eagles have been residents of Duck River bottom during the period of heavy duck concentrations in the winters 1952-53 and 1953-54. These birds have been reported by Mrs. William F. Bell in "The Migrant" (23:58, 1952).

FLORIDA GALLINULE (**Gallinula chloropus**). One adult of this species was observed by Mrs. Cypert and me June 5, 1953, in Duck River bottom near Harmon Creek.

GOLDEN PLOVER (**Pluvialis dominica**). One of these birds was found dead near Sulphur Well by Bruce C. Johnson, March 23, 1950. The specimen was mounted by L. D. Thompson.

UPLAND PLOVER (**Bartramia longicauda**). Two of these birds were observed on the Duck River dike near the pump station by C. R. Markley and me, August 8, 1947.

DOWITCHER (**Limnodromus griseus**). A flock of about twelve of these birds were flushed by me near the Duck River pump station, May

6, 1954. Four of them were in winter plumage or were changing. The remainder were in spring plumage.

BUFF-BREASTED SANDPIPER (**Tryngites subruficollis**). Two of these birds were observed by Mrs. Cypert and me in Duck River bottom, September 9, 1953. They were feeding on mud flats in company with Killdeers and Pectoral Sandpipers.

I believe there are only two other records of this species in Tennessee; one by Burt Monroe, September 19, 1943, near Halls (Migrant, 15:76, 1944) and the other by Lula Coffey at Mud Lake, September 16, 1952 (Migrant 23:47, 1952).

AVOCET (**Recurvirostra americana**). Four of these birds were observed by Mrs. Cypert and me in the Duck River bottom near Harmon Creek, September 25, 1953. They were feeding in shallow water.

I believe there is only one other record of the avocet in Tennessee; that reported by Joe Howell in Knox County, November 7, 1948 (Migrant 19:73, 1948).

TENNESSEE NATIONAL WILDLIFE REFUGE
PARIS, TENNESSEE

T.O.S. ANNUAL MEETING, 1955

The site for the T.O.S. meeting near Waverly, Tennessee, on May 7-8, 1955, promises something quite interesting and different for our annual gathering. A group from Memphis and Nashville made a special trip to this area before deciding on it. Mrs. Cypert has arranged field trips for Saturday and Sunday to the Duck River rookery and nearby areas. A dinner will be held Saturday night at the Waverly School Cafeteria. Notices regarding accommodations will be sent out as soon as plans are complete.

If you are not sure that you want to go, read Mr. Ganier's article in the March 1951 MIGRANT, one by Mr. Cypert in the November 1954 KENTUCKY WARBLER, and one by Mr. Cypert in this issue of THE MIGRANT. — MURIEL MONROE, President, T.O.S.

TENNESSEE CONSERVATION LEAGUE WINS AWARD

For the second straight year the Tennessee Conservation League has won national recognition for its activities in behalf of the better management of the soils, waters, forests, and wildlife of our State. The League was awarded the annual plaque presented by the National Wildlife Federation to the state organization having performed the "most distinctive service" during the preceding year. This is the first time the award has been won two years in a row by the same state.

Much of the credit should go to John H. Bailey, secretary of the Tennessee Conservation League. He is a professor at East Tennessee State College, Johnson City, and a member of T.O.S.

Unusual Winter Visitors in 1954-1955

Several species of northern birds have penetrated farther south this past winter than has ever before been recorded, and Tennessee received a few of these. White-winged Crossbills were seen in Memphis, a new state record, on Dec. 26, 1954 (MIGRANT 25 (4): 74.) Two other species, altho not new to the State were seen in new localities and in larger numbers; these are the Evening Grosbeak and the Snow Bunting. In addition to the reports below, an Evening Grosbeak was seen at Greeneville on March 5, 1955 (Ruth Nevius.) Reports of Grosbeaks have reached us from as far south as Rome, Georgia.

Red-breasted Nuthatches and Pine Siskins are not rare winter visitors, but they have been more frequent this winter than usual at Chattanooga (Adele H. West) and Nashville (Katherine Goodpasture). In the early part of the winter Red-breasted Nuthatches were much commoner than usual around Knoxville.

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SNOWY OWL ON KENTUCKY LAKE — On November 11, 1954, John Gibson, of Paris, reported seeing a Snowy Owl at Eagle Creek Bay on Kentucky Lake near Paris Landing, Henry County. When seen, the bird was perched on a stump in the draw down zone of the lake.

Several weeks later it was reported that a Snowy Owl had been killed and given to Robert Barker of Camden, Tennessee, who mounted it. I went to see Mr. Barker who has the mounting in his place of business, Barker & Sons Jewelry store, in Camden. It is a beautiful specimen and well mounted. Mr. Barker advised me that it was killed by a hunter on Kentucky Lake near Faxon, Benton County, Tennessee, "about two weeks before Christmas." This is doubtless the same bird reported by Mr. Gibson.

The Snowy Owl was reported from Henry County by L. D. Thompson in the winter of 1930-31, when four of these owls were reported from Tennessee and vicinity. This 1954 record is the first since that time. EUGENE CYPERT, JR., Tennessee National Wildlife Refuge, Paris, Tenn.

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EVENING GROSBEAKS AND SNOW BUNTING FOUND IN NASHVILLE AREA—It was startling to find both a flock of Evening Grosbeaks and a Snow Bunting for the first time in the Nashville area within less than a week.

On November 14 a flock of at least ten Evening Grosbeaks was found on the South Harpeth River, 20 miles southwest of Nashville near Basin Spring. Attention was first directed toward the birds by their loud call-notes. Two birds perched in a leafless tree and sat in good, clear view. There was no moment of hesitancy in recognizing the colorful birds with whitish beaks as Evening Grosbeaks. The several birds gathered in a well-fruited hackberry and sat for a short time. I could not determine if they actually ate the hackberries. When the whole flock rose there appeared to be easily twice five birds and probably more. They flew quickly away and could not be located in the area on the following day.

Within the week, on November 19, a single Snow Bunting was flushed from grass on a farm surrounding Bush's Lake near the Cumberland River at the edge of the Nashville city limits. The bird flew a short distance, settled again in dry Bermuda grass and allowed approach to within 15 feet. It moved deliberately as it fed and seemed to creep along close to the ground. Comparing the appearance of this bird with Dwight's descriptions of various plumages of Snow Buntings one may reasonably judge it to have been a female.

Several TOS members were able to study the Bunting the following morning for two to three hours. It was not located on November 21 nor has it been observed later.

The nearest locations of previous records of Evening Grosbeaks in Tennessee are those reported by Hebard for Van Buren Co. about 80 miles southeast (Migrant, Sept., 1947) and by Mrs. West for Harriman about 150 miles east (Migrant, June, 1952). Mr. Fred Behrend's records of the Snow Bunting on Big Bald Mountain for the winters of 1948 and 1953-54 (Migrant, Dec., 1948 and Dec., 1953) and his records at the same location for the current season (personal communication) are the only Tennessee records of which I am aware previous to this one.

It will be interesting to note if the appearance of these two species in this area at this time is a part of an unusual influx of boreal species. Except for a short-lived light snow on November 2 followed by day or two of abnormal cold (low of 19°), local weather for November was moderate. The week of November 14-20 was generally open with slight precipitation and moderate temperatures. — KATHERINE A. GOODPASTURE, 408 Fairfax Ave., Nashville, Tennessee.

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EVENING GROSBEAKS IN THE GATLINBURG-KNOXVILLE AREA — The first record of Evening Grosbeaks in this area in two and a half years was made on November 9, 1954, when Stupka heard some notes of this species near his home, five miles east of Gatlinburg. The next observation was on Nevember 21 when ten birds were seen flying over Gatlinburg. Beginning on December 18, Grosbeaks were seen frequently thru March 15 (the time of this writing) by Mr. Joe Manley, Assistant Park Naturalist Henry Lix, Chief Ranger Granville Liles, District Ranger Ealy, and Stupka. The several localities of these observations were Gatlinburg, Park Headquarters, Newfound Gap, and north of Cherokee, N. C.; the last three localities are within the Great Smoky Mountains National Park. The numbers of Grosbeaks seen each time varied from a few to about 100, except on February 23 when Mr. Manley estimated a flock along the main street of Gatlinburg to contain 250 birds, by far the largest number of which we had any report.

Medium-sized flocks of Grosbeaks were occasionally reported from Sevierville during February and into late March by Paul Pardue.

The first record of this species in Knox County was made by Miss Dorothy E. Williams at her home on Sherrod Road, Knoxville, when she saw a single bird come to her bird bath just under her window about mid-January. The next record in this area was made by Tanner at his home about five miles southeast of Knoxville where five or six birds were seen on January 23, 1944. One or two birds came to his feeder irregularly until February 16, and two birds were reported coming to another feeder in Knoxville until February 24, but there have been no reports since then.—ARTHUR STUPKA, National Park Service, Gatlinburg, and JAMES T. TANNER, University of Tennessee, Knoxville, Tenn.

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EVENING GROSBEAKS AND SNOW BUNTINGS ON ROAN AND BIG BALD MOUNTAINS, TENN.-N. C. — Two species of northern birds, Snow Bunting and Evening Grosbeak, re-appeared in Upper East Tennessee in the fall of 1954, the former after an absence of less than eight and a half months, the latter after a lapse of three years. Both species were found on high mountains of the Appalachian System east of the Tennessee Valley. The localities in which they were observed are at altitudes of from 5500 to 6200 ft., with but two exceptions in which Evening Grosbeaks were found at lower elevations.

The return of the Snow Bunting to Big Bald Mountain in Unicoi County, Tenn., present there in 1948 and during the 1953-54 season was exceptionally early, the date of first observation in the 1954-55 season being October 24.

Finding the Evening Grosbeak and Snow Bunting for the first time in the Roan Mountain area last fall was not the result of planned search but attributable rather to serendipity. A flock of approximately 30 birds unidentified in flight was found to consist of Evening Grosbeaks after having been located, by their chirping, in the spruce of Roan Mountain, at 6100 ft., on November 13. A flock of 13 Snow Buntings was found on treeless, grassy Round Bald, situated immediately east of the coniferous forest of Roan Mountain, on November 20 at 5700-5800 feet.

These chance observations led to a series of checks on the continued presence of both species. Carried out under varied and in part most rigorous weather conditions, these checks were highly successful and proved the stay of both species in the localities under review during practically the entire winter.

On three trips to Big Bald Mountain, in addition to the one of October 24, Snow Buntings were seen at about 5500 ft. as follows: 3 on November 7, 1 male in unusually white plumage on January 2, 1 male, apparently the same bird, on February 20. None could be found on March 6 in driving rain, fog and very strong wind.

Ten trips to Round Bald subsequent to November 20, extending on two occasions to Grassy Ridge Bald farther east of Roan Mountain proper than Round Bald, resulted in seeing Snow Buntings at altitudes of from 5600 to 6175 ft. as follows: 13 on December 4, 10 on December 11, 13 on January 1, 13 on January 8, 12 on January 22, 12 on January 23, 2 on February 5, 10 or 11 on February 12, 14 on February 19, 11 on February 26. None could be found on December 18, March 5, 12 and 26. J. C. Browning and H. P. Langridge of the Elizabethton Chapter accompanied the writer on the December 4 and March 5 trips, respectively.

Checks on the Evening Grosbeaks on Roan Mountain were, for lack of time, less regular, and this species was seen less frequently. Following the November 13 observation, it was found on seven out of fourteen trips, most of which were combined with the Round Bald trips listed in the preceding paragraph. The numbers of Evening Grosbeaks observed at altitudes of from 5750 to 6200 ft., unless otherwise stated, were as follows: flock of 4 on January 1, additional undetermined small number on Roan Mountain approaches at 4200 to 4500 ft. on same date, flock of about 40 on January 8, 1 on January 22, flock of 5 on January 23, flock of 24 in Roan Mountain village at 2575 ft. on February 12, flock of at least 60-80 on February 26, flock of 5 or 6 on March 20. On the latter two dates the Grosbeaks were, at 4:15 and 3:45 P.M., respectively, flushed out of balsam trees in which they apparently had gone to roost. None were found on the latest two checking dates, March 26 and 27, when Roan Mountain was snow and frost covered and a severe cold spell which had just reached the region had lowered temperatures to near zero.

The question arises as to the causes of the unusually early seasonal appearance of these birds, and their remaining throughout winter, in the localities named.

In the case of the Evening Grosbeak, inadequate food supply or premature severe winter conditions in their usual habitat, together with supposed over population, account, in the opinion of some observers, for the Evening Grosbeaks' southward exploration of recent year. It is conceivable that Roan Mountain's extensive stands of spruce and fir, characteristic of their customary habitat, and climatic conditions of Roan Mountain approximating those of their usual environment, appeared inviting to the Evening Grosbeaks, even though the season's scant crop of conifer seeds left much to be desired in the matter of food supply.

The Snow Bunting's drifting southward 2000-3000 miles from its breeding grounds in the Arctic Zone to high mountains in the Southern Appalachians, on which to winter, is not readily explainable. According to J. Dewey Soper in "Ornithological Results of the Baffin Island Expeditions of 1928-29 and 1930-31" (AUK, Vol. 63, Nos. 1, 2, 3, 1-24, 223-239, 418-427) and Dr. N. Tinbergen's study of the Snow Bunting in the Angmagssalik District of eastern Greenland, entitled "The Behavior of the Snow Bunting in Spring" (Transactions of the Linnaean Society of New York, Volume V, 1939), the Snow Bunting starts leaving its summer habitat in the Arctic in September and by the middle of October practically all of these birds have departed. During winter the species occurs commonly in northeastern, northern, and northwestern states of the U. S. Records in the South, except along the Atlantic Coast, have been scarce. No literature reference has been found by the writer to the sustained stay of the Snow Bunting in any locality in the South during an entire season. One may assume in the present cases of observation that the Snow Buntings, however they happened to find their way to them, were attracted to the southern "balds" by the latter's possible resemblance, in character of surface and vegetation, to their far northern summer habitat. Information contained in the publications cited above reveals that the first males return to their breeding grounds in late March or early April, the females about the middle of May, and that the first young are observed from about the middle of June on. Interesting in connection with the Snow Bunting's range in its summer habitat is Dr. Raymond A. Paynter's reference (AUK, 72 (1): 79-80) to the observation of small numbers of these birds on Fletcher's Ice Island, in close proximity to the North Pole, during the summer of 1953. — FRED W. BEHREND, 607 Range Street, Elizabethton, Tenn.

The Round Table

A NOVEMBER HIKE AT MANCHESTER—Returning from a business conference at Gatlinburg, I planned a day's hike at some point normally too far to reach readily from Memphis. Based in part on bus schedules, I selected Manchester and spent November 7 in the field there. Some sixth sense guided me to the fields and thickets along Duck River and its small canyon which I hope to revisit when the mountain laurel is in bloom. Swinging to the southwest, then into town for lunch, I spent the afternoon to the northeast. Several pastures were worked, also weedy fields and those with drouth-burnt cover crop stands. The list, apparently normal, follows. Of personal interest were the Woodcock and Vesper Sparrows. Weather fair, changing to part cloudy, 30°-40°; wind east, fresh; 8-12:20, 1:30-4:15. Turkey Vulture, 1; Red-tailed Hawk, 1 ad; Bob-white, 23; Killdeer, 4; Woodcock, 2; Mourning Dove, 5; Belted Kingfisher, 1; Flicker, 3; Red-bellied Woodpecker, 3; Hairy Woodpecker, 1; Downy Woodpecker, 2; Phoebe, 1; Horned Lark, 9; Blue Jay, 35; Crow, 424 plus; Carolina Chickadee, 4; Tufted Titmouse, 4; Winter Wren, 4; Bewick's Wren, 4; Carolina Wren, 13; Mockingbird, 5; Brown Thrasher, 2; Robin, 1; Bluebird, 10; Golden-crowned Kinglet, 3; Ruby-crowned Kinglet, 1; Am. Pipit, 2; Cedar Waxwing, 5; Loggerhead Shrike, 1; Starling, 907; Myrtle Warbler, 17; Meadowlark, 88; Bronzed Grackle, 70; Cardinal, 36; Goldfinch, 84; Red-eyed Towhee, 35; Savannah Sparrow, 55; Vesper Sparrow, 21 (scattered, except flock of 12); Slate-colored Junco, 45; Field Sparrow, 121; White-crowned Sparrow, 2 (Imm); White-throated Sparrow, 130; Song Sparrow, 108.—BEN B. COFFEY, JR., Memphis.

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OBSERVATIONS AT LONGLEATH, NASHVILLE—It was noon and hot on August 15, 1953, when we stopped for a better look at a flock of birds in a pasture about Longleath on Belle Meade Pike. The birds were on the ground and on close examination we saw they were 28 Barn Swallows concentrated in an area of a yard square. Their wings and tails were spread to the sun. When flushed, they moved to the inner branches of an oak tree although there were utility wires close by.

To see 28 Barn Swallows apparently sun bathing or perched within the branches of a tree seemed an unusual behavior not previously observed by any member of the party (Mr. Ganier, Ruth Castles and the writer).

In the same pasture we noticed a dead bird supported by the wire and upright post of an electric fence. Miss Castles found a second bird on the ground along the same fence. Both specimens were too badly decomposed for identification but we believed they were members of the Flycatcher family. The evidence was strong that these birds had been electrocuted through some mechanism by which the current was grounded through their bodies. On a later visit, I talked with Mr. Phil Kerrigan, the owner of Longleath, who said that occasionally Bluebirds had been found dead on the wire fence.

Mr. Kerrigan also said that a barn once stood where his residence is and that the swallows have been returning to nest about the house and garage since they were built over ten years ago.—JENNIE RIGGS, 3313 Fairmont Drive, Nashville, Tennessee.

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A WHITE PELICAN AT NASHVILLE—On November 4, 1954, I received word that a White Pelican (**Pelecanus erythrorhynchos**) had been caught on the afternoon of November 3 on the Cumberland River about 11 miles north of the Nashville courthouse and was still in captivity. I went after the bird, expecting to band and release it thus putting on record the first White Pelican for the Nashville area. One other record for middle Tennessee has been published from a newspaper account of a bird of this species (apparently dead) found by a farmer in his barn lot at Tullahoma, September 24, 1926, (A. F. Ganier, 1929, Wilson Bull. 41:96).

The Nashville bird was in bad condition. It had been pursued in a motor boat, then carried a good many miles in the closed trunk of an automobile where a can of oil had spilled, soaking tail, wing tips and underparts. We brought it home that evening, placing it in a large bath house and providing it with fish in a large pan of water, but it died in the night.

As it was not usable for a specimen, only the wings were preserved after it was kept a week for display. At death it weighed 12 pounds. The folded wing measured 23 inches; the tail (24 rectrices), 5.5 inches; bill, from gape, 14.5 inches. The bill was of a light cream color with bluish edges on the upper mandible, terminating in a yellow hook. The gular pouch was yellow as were the tarsi and the webbed feet. The lining of the pouch was infested by a large number of the black and white striped parasites that are commonly found there on White Pelicans. Some were collected. The gray color of the lesser wing coverts is probably indicative of immaturity.

Of particular interest were the short, compact body plumage and the great, hollow wing bones that contribute to the beautiful flights of this magnificent bird. — AMELIA R. LASKEY, 1521 Graybar Lane, Nashville, Tenn.

YELLOW-CROWNED NIGHT HERONS NESTING IN GREENE COUNTY. — A pair of Yellow-crowned Night Herons (**Nyctanassa violacea**) nesting on Roaring Fork Creek north of Greeneville is the first nest of this species found in Greene County; previously its most easterly nesting in Tennessee appears to have been at Nashville (Ganier, A. F., "The Breeding Herons of Tennessee," Migrant, 22:7-8, 1951). The nest was found April 18 in the elm where these herons were first seen April 11 and was located about eighteen feet above the creek and fifteen feet out from the trunk on a horizontal branch. At first the herons stood when approached, but by April 24 they sat closely on the nest. The nest, soon becoming concealed by foliage and being almost constantly attended, escaped predation by crows which crossed the area carrying food from the creek bottoms to their young in the woods. Of the five eggs, three hatched, the movements of the young being noticeable May 20. On June 30 they were last seen standing in and about the nest. On page 133 of the chapter "Herons with Golden Crowns" (Nice, M. M., The Watcher at the Nest) is a sentence local T.O.S. members came to appreciate: "From babyhood up the chief occupation of Yellow-crowned Night Herons appears to be complete immobility."

The adult herons fed during early morning in nearby creek bottoms, nearly dry but with crayfish available. During the day one often waded near the nest. They often flew about a mile to Lick Creek. They went at dusk with some regularity a half mile across a ridge to Grassy Creek.

Last seen were one young wading on July 10 and two adults in flight August 5.—RUTH REED NEVIUS, Route 1, Greeneville, Tenn.

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SPOTTED SANDPIPER BREEDING IN MIDDLE TENNESSEE—On June 26, 1954, about five miles northwest of Ashland City, Cheatham County, Tennessee, I observed an adult Spotted Sandpiper (**Actitis macularia**) with two young birds. These were along the weedy banks of Sycamore Creek in the Cumberland River floodplain, a suitable nesting habitat for the species. Close examination of the young showed them to be somewhat smaller than the adult, and with the fuzzy tips of the natal down projecting above the juvenal feathers all over the body. When I approached to within a few feet of them, they fluttered, with some difficulty, to the other side of the creek (about 30 feet wide). It seemed apparent to me that these young birds could not have flown into the area from any great distance, and that this constituted a highly probable breeding record for Middle Tennessee.

H. M. Stevenson reviewed the Tennessee breeding records for the Spotted Sandpiper (Auk 61:247-251, 1944) and concluded that the only valid record was that of Lyle and Tylor, near Johnson City (The Migrant 5:49-57, 1934). A search through "The Migrant" reveals a number of June sight records for the species but no other breeding records. Spotted Sandpipers nest regularly in the vicinity of Bowling Green, Kentucky, (G. Wilson, The Wilson Bulletin 41:177-185, 1929), only 50 or 60 miles from the site of the present record. — CHARLES M. WEISE, Fisk University, Nashville 8, Tenn.

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RED-COCKADED WOODPECKER NEAR CHATTANOOGA — On June 30, 1954, while making a check on the possible nesting of Blue Grosbeaks in an area of Chickamauga Park, Georgia, where I found them last year, I was attracted by an unfamiliar bird note. Upon stepping from the highway a few yards into the woods, I quickly discovered the source of the constant cries to be a family of Red-cockaded Woodpeckers **(Dendrocopos borealis)**. At first only two were in sight, but within a few minutes four could be counted. An adult female worked industriously boring in a dead branch and then appeared to feed a juvenal male with a red head spot. Only one kind of note was heard, and it was carried on unceasingly, apparently by all of the individuals, during thirty minutes of observation. All four birds were active in moving from tree to tree.

Altho there are large stands of pine in the park, the area where these woodpeckers were seen consisted mostly of oaks, with only a few scattered pines.

The second observation of this species was on Dec. 2, 1954, when three individuals were seen about a mile from the original area by June Hall, Mabel Norman, and Adele West. The only sound heard was the frequent use of the same note heard at the time of the original observation.—ADELE (MRS. E. M.) WEST, 1625 S. Clayton Ave., Chattanooga 4, Tenn.

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OVENBIRD EATING PEANUT BUTTER FROM SUSPENDED FEEDER—On October 7, 1953, I banded an Ovenbird that was retrapped on the 10th and 13th. During this 7-day period it was seen many times each day about the grounds and on a suspended feeder that consisted of a section of a cedar trunk with branches shortened for perches and holes bored to hold peanut butter. This bird would fly up from the ground to three successive branches and then across about a foot to the feeder where it ate very leisurely for several minutes. It always followed the same procedure, never flying from the ground directly to the feeder. This behavior seemed unusual for an Ovenbird.—ADELE H. WEST, Chattanooga, Tenn.

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SUMMER RECORD OF THE RED CROSSBILL IN UPPER EAST TENNESSEE — On a bird hike along the crest of Iron Mountain, from Cross Mountain above Shady Valley southward, in the afternoon of June 20, 1954, I noticed numbers of small birds flitting among the tops of tall oak trees a little ways off the trail. On close approach I was greatly surprised to find these birds to be Red Crossbills, males and females, easily identified by their respective color of plumage and the line down

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the back to the rump. My attempt at counting them was interrupted by their flying away in one flock which revealed the presence of a greater number of these birds than imagined. Owing to their disappearing behind the tree line an accurate count was not possible, but, conservatively estimated, there were about 20 to 25 in the flock. Their call note in flight (chip chip) furnished an additional means of identification. There are no conifers on this part of Iron Mountain. Oak, hickory, maple, black cherry and tulip trees principally cover the crest and slopes. The locality in which the birds were found is at about 4000 feet altitude approximately 15 miles east-northeast of Elizabethton, on the Carter-Johnson counties line.

This species has previously been observed in Upper East Tennessee, on June 8, 1941, by Dr. James T. Tanner, who saw a small flock in some hemlocks at Rock Creek near Erwin. (Migrant, 12:29, 1941).—FRED W. BEHREND, 607 Range Street, Elizabethton, Tenn.

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LECONTE'S AND HARRIS'S SPARROW NEAR KNOXVILLE—The first LeConte's Sparrow (**Passerherbulus henslowii**) reported from the Knoxville area was found by Joseph C. Howell on Dec. 13, 1954. Three birds were seen by him, and one collected, in a field of broom sedge and Johnson grass near Concord. One was seen on Jan. 16 and again on Feb. 20 when several T.O.S. members were able to get a good look at it. It was found again on March 20 by members of a T.O.S. field trip.

On Feb. 10, 1955, a Harris's Sparrow (**Zonotrichia querula**) began coming to a feeding station maintained by Ralph J. Zaenglein, Willard Avenue, Maryville. It was seen regularly by him, and by myself on Feb. 13 and Mrs. R. A. Monroe on Feb. 20. It was last seen on Feb. 26. This is the first record for this species east of Nashville in Tennessee; it has been reported twice from Nashville and three or four times from Memphis. — JAMES T. TANNER, University of Tennessee, Knoxville.

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RECOVERY OF A CHICKADEE POPULATION FROM THE 1951 ICE STORM

By KATHERINE A. GOODPASTURE

It is rare and fortunate when observations in natural history are recorded in such a way that they afford a means for measuring the effects of unpredictable meteorological phenomena on biological populations. Such was the case when bird population records kept before January 28, 1951, served as a control by which to interpret the effects on birds of the terrific ice storm which began on that date and covered Middle Tennessee.

Beginning in November 1950 I had been recording, at two or three week intervals, counts of species and individuals of all birds identified by sight or sound along a five mile country road approaching Basin Spring and in the woodland and pastures of this area. My own attention to a count varied somewhat from trip to trip, but the route and regularity were constant. For example, if I went for a "farming day", I kept a record of all individual birds that came to my attention within the territory without intensive search for them. On the other hand if I went for a "bird day", often with a companion interested in birds, frequent stops were made along the road, close attention was given to birds, and the result of a concentrated search for individuals and species was recorded. Other days' counts might represent a combination of a casual count along the road and two or three hours of intensive observation at the farm. My most frequent companion on "bird days" was Mrs. Amelia Laskey.

The cataclysmic ice storm of 1951 fell between January 28 and February 1. Descriptions of this terrific episode are recorded elsewhere. Suffice it to say that by February 1 every twig, limb, and tree trunk were encased in thick ice. Hard ice and deep snow covered the ground for a number of days and extreme temperatures of from 13 to 20 degrees below zero were recorded. Bird counts over the territory were continued immediately on the heels of the storm and afterward. When counts made before and after the storm were plotted, a number of things related to the effect of the storm on the bird population became evident. One species adversely affected was the Carolina Chickadee (**Parus carolinensis**).

Records for sixteen trips from November 15, 1950, thru January 27, 1951, showed Chickadees present on each trip. The highest daily

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counts were 13, 18, and 31; the usual count was 6 or 8. The sum of the counts was 150 giving an average of 9.37 Chickadees per trip.

For eighteen trips during five weeks immediately following the blizzard, February 2 thru March 8, not a single Chickadee was observed. On the nineteenth trip, March 11, one Chickadee was recorded and on March 25 there were two. These single birds were found at different locations and were not recorded in those same localities later. They seemed to be wanderers.

From July 1, 1951, thru January 12, 1952, during which fifty trips were made to the area, not a single Chickadee was recorded. One Chickadee appeared on January 13 and after that none was observed until June 10 when another one was seen. There were 1 on July 4, 4 on July 8, and 1 on August 9; and 8 individuals were seen on five trips during September. Ten trips during November and December 1952 gave one Chickadee on each of two days and two on one day. These eighteen records of Chickadees from July 1 thru December of 1952 as against no record at all for the same period of 1951 indicate a gradually increasing but still drifting population.

Thru the spring and summer of 1953 records occurred with increasing frequency. From July 1 thru December of 1953, 38 records of Chickadees indicate further slow increase in the population. Appearance of the species was still irregular and unpredictable. There was no location where it seemed definitely re-established.

To recapitulate for the July-December interval, records of the appearance of Chickadees were: 1951, 0; 1952, 18; 1953, 38. Using the interval of November 15 thru January 27 allows a comparison with counts made before the storm; the data are in the following table.

RECORDS OF CHICKADEES BETWEEN NOV. 15 AND JAN. 27

Year	Total No. Chickadees	Number Trips	Average Count per Trip
1950-51	150	16	9.37
1951-52	1	18	.05
1952-53	8	15	.53
1953-54	18	9	2.00

This report has been delayed until after the fall of 1954, awaiting some evidence for the re-establishment of the Chickadee as a breeding species. The first concrete evidence of Chickadees having bred in the Basin Spring area since the 1951 blizzard came on July 6, 1954, when an adult male and two or three fledgings were observed feeding along Shale Path at Basin Spring. The adult searched vigorously for food and the begging young birds followed.

During September, October, November, and December of 1954 Chickadees again became regularly present on every bird count, and I knew several locations where I could expect to find two or three. The void of three and a half years seemed to be occupied at last by a resident population. On January 2, 1955, January 5 (with Mrs. Laskey), and February 22 (with Miss Riggs), careful counts of Chickadees along the usual route yielded 9 on each of two days and 10 on the other, the highest daily counts since the ice storm.

The data would seem to support these general conclusions: that the population of Carolina Chickadees in the Basin Spring area disappeared completely during the ice blizzard of January-February 1951; that there was very little wandering into the area during the first year following; that irregular appearances which still seemed to be those of wandering birds occurred with slowly increasing frequency during the next two years; and that there was a small breeding population in the area during the fourth breeding season after the blizzard. Since then the population has seemed to be thinly distributed but regularly and predictably present. On the basis of three days of concentrated counting, compared with similar counts taken before the storm, it would seem that the population has climbed from zero immediately after the storm to about one-half its pre-storm level during three and a half years.

Other species of birds in the area suffered to varying degrees and recovered with different degrees of rapidity. My records indicate that the Chickadee population was the most drastically reduced and the slowest by far to recover even one-half its previous density.

408 FAIRFAX AVENUE — NASHVILLE 12, TENNESSEE.

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COOPERATIVE MIGRATION STUDY — SPRING 1955

Three years ago a cooperative migration study was begun by which it was hoped that the arrival or departure dates of certain common migrants would be plotted for each migration season for every county east of the Rockies. The response by observers tripled in 1954 over the previous year, but more cooperators everywhere are needed, especially in the South.

The data needed are the arrival dates, peak migration dates, and dates of departure or dates last noted, together with the numbers seen on each of these dates, for the species listed below. The ideal cooperator is one who daily notes the birds in the same area, in a garden, on his way to work, etc. The migrants being studied are: Canada Goose, Marsh Hawk, Wilson's Snipe, Nighthawk, Chimney Swift, Hummingbird, Kingbird, Crested Flycatcher, Wood Pewee, Barn Swallow, Purple Martin, House Wren, Catbird, Brown Thrasher, Wood Thrush, Red-eyed Vireo, Black and White Warbler, Yellow Warbler, Myrtle Warbler, Ovenbird, Redstart, Baltimore Oriole, Scarlet Tanager, Rose-breasted Grosbeak, Indigo Bunting, Junco, Chipping Sparrow, White-crowned Sparrow, White-throated Sparrow.

Observers having data can send them in to the individual in their area who prepares notes for "The Season", or can send them directly to Mr. Chandler S. Robbins, Patuxent Research Refuge, Laurel, Maryland.

THE SHORT-EARED OWL IN THE MID-SOUTH

By BEN B. COFFEY, JR.

When R. Demett Smith, Jr., accompanied by Gill and Bonner, found five Short-eared Owls in Memphis at the President's Island blackbird roost on Dec. 21, 1952, it was our first record for some years. Therefore a number of bird students visited the roost not only to watch the blackbirds but to see the owls, from one to four being seen thru Jan. 24. Actually it was a forecast of other occurrences of this species.

There have been a number of records from Clarksville and Nashville and a few from Mt. Pleasant in Middle Tennessee, but not many from West Tennessee. The only previous record in Memphis was by the late Austin Burdick, Jr., of one on March 25, 1941, at Jackson and Warford (Migrant, 12:35, 1941). A local taxidermist had one that had been killed Dec. 23, 1930, at Trezevant, Tenn., and in January 1932 our Zoo had one brought in from a locality not recorded. On Feb. 18, 1941, Eugene Wallace and George H. Lowery, Jr., saw one near Shelby Forest and three at the Memphis Municipal Airport (Migrant 12:15, 1941). Burt Monroe kindly writes me that during the winters of 1943 and 1943-44 he found the species regularly at the Dyersburg Army Air Base at Halls, seeing from two to four.

The first seen by local students was one on Jan. 1, 1934, at Lakeview, Miss., a mile south of Tennessee (Migrant 5:10, 1934). On the Moon Lake count, Dec. 29, 1940, two were seen in a Hwy. 61 field near Clayton. On Jan. 12, 1941, at this spot we flushed one and found one freshly shot (Migrant 12:16, 1941). M. G. Vaiden (Migrant 14:51, 1943) collected a male near Rosedale, Miss., Mar. 18, 1940, while he reports (Migrant 24:9, 1953) not less than 50 on Nov. 9 and 10, 1952, and flocks that winter. Brooke Meanley advises (1953-54) that these owls were common at the blackbird roosts in the Stuttgart, Ark., area. We expected it to be common in the Lonoke rice field area but for three trips each of three winter seasons we have only two records—one on Jan. 27, 1952, and one on Dec. 26, 1953. On Nov. 15, 1953, hunters saw five or six near Clarkedale, Ark., shooting two which were later identified by J. E. Jolly. At another Crittenden County locality, south of Crawfordsville, George Peyton, Jr. saw one in rice stubble on Mar. 13, 1954.

The first one noted during the second season off the President's Island blackbird roost was one on Nov. 11, 1953, by George Peyton, Jr. One to two were seen subsequently but the Count party saw at least nine on Dec. 27. No further check had been reported when the roost was unexpectedly deserted about mid-February, part of the black birds evidently moving to wooded Elmwood Cemetery. But in walking airfields looking for longspurs and pipits we began to find this species wherever there was some weedy cover: Dec. 13, 1953, at Halls, 3 (BC, LC, AS); Feb. 6, 1954, at Field 21 near Memphis, 1 (BC); Feb. 14, 1954, (BC, LC, KR), Westover, 2, and Union City, 5; Kilian Roever returned to his "home" field, Westover, and saw 5 there Feb. 21. Some fields where we found no owls did not appear to be suitable. The last record was a first for the Penal Farm—one, Apr. 17, 1954, when the Lee R. Herndons went with us to our much frequented Smith's-Sprague's hill.

In summary, this owl may be present from about Oct. 30 to Apr. 17. Except for the early part of 1941, the species did not become widespread here until 1952-53 and 1953-54. Some localities have been worked repeatedly before recording it. As we enter a new season, one at the small Sanders Field near Walls, Miss., on Oct. 30, 1954 (BC), gives us our earliest date while seven were seen Nov. 21 (LC, AS, BC) on our first visit to the Jonesboro, Ark. Airfield.

MEMPHIS, TENNESSEE.

THE 1955 SPRING FIELD DAYS

By T.O.S. MEMBERS

Some unusual birds for our Spring Field Days were the Ruddy Ducks at Nashville, the Golden Eagles seen on Mt. Rogers by a member of the Bristol Chapter, Golden Plovers at Lakeview, a Laughing Gull at Duck River, and Bonaparte's Gulls at Knoxville. The Evening Grosbeaks seen at Knoxville, plus one bird picked up at Elizabethton two days before their Field Day, were the tail end of our rare winter visitors. Other species which were a sign of the unusual winter just past are the Red-breasted Nuthatch, rarely seen on Spring Field Days, and the relatively high numbers of Myrtle Warblers and Pine Siskins. The total number of species reported is 191, the second highest on record.

The birds reported from each locality are listed in the "Tabular Record" which follows. The localities are arranged from west to east across the State. The general information from each locality is in the paragraphs below, and these paragraphs also contain additional information on the birds marked with an asterisk (*). The abbreviations used are: "a"—abundant, "c"—common, "fc"—fairly common.

LAKEVIEW, MISS.-TENN., and MEMPHIS. May 1, 1955. 60 members of the Memphis Chapter; Ben B. Coffey, Jr., compiler. The Veery and Swamp Sparrows were reported by R. D. Smith. The other birds marked were seen at Memphis rather than Lakeview.

REELFOOT—South end of lake around to Walnut Log, about two hours by boat, four by foot, and three by auto. May 14, 1955; 7 a.m. to 5:30 p.m. Cloudy and overcast, slight rain, temp. 64 to 75. 5 observers; Howard Barbig, compiler. The heronry near Ridgely was visited where an estimated 1000 nests were seen, in the ratio of one Snowy Egret to 20 Little Blue Heron nests; there were a few nests of Black-crowned Night Herons. An estimated 2000 Little Blue Herons were seen.

HUMPHREYS COUNTY — Waverly, Johnsonville, the Duck River Dewatering Area of the Tennessee National Wildlife Refuge, Richland Harbor. May 7-8, 1955. Annual meeting of the T.O.S. (see report in this issue). The Laughing Gull was seen on May 8 in the Duck River bottom by Mr. and Mrs. Eugene Cypert. Northern Waterthrushes were identified by Howard Barbig and James T. Tanner. Nests were found for all the other species marked in the list. An estimated 1000 nests were in the Duck River rookery, the abundant species being in the ratio of 5 Great Blue Herons to 1 American Egret to one Double-crested Cormorant. About 200 Cliff Swallow nests were on one of the bridges crossing the Tennessee River.

NASHVILLE—West, north, and south environs, Franklin, and the Cumberland River bottoms of north Nashville; also west of Ashland City were two extensive lagoons added greatly to the unusual number of water birds. May 14, 1955; 5 a.m. to 6 p.m. Weather cool and partly cloudy. 16 observers; A. F. Ganier, compiler. 80 of the Black-crowned Night Herons were in a nesting colony. The Wood Ducks had young. The Ruddy Ducks were seen on Franklin Reservoir.

CHATTANOOGA — Same area as Christmas Count. May 1, 1955. Weather clear, light wind. 17 observers; Adele H. West, compiler. The female Wood Duck was carrying 4 young on her back. The Florida Gallinules were observed on a private pond in Georgia. The Rusty Blackbird was identified by Mr. and Mrs. Eugene West.

KNOXVILLE—The usual area within 7½ miles of Sharp's Gap. May 1, 1955; dawn to 1 p.m., with a few observers in the afternoon. Clear and warm, wind variable. 30 observers in about 20 parties; James T. Tanner, compiler. The Bonaparte's Gulls were seen at close range from a boat on the river by Don Hurley, who also reported the Barred Owl. This was the last record of Evening Grosbeaks in Knox County this season. Arthur Stupka reported that the last record for Gatlinburg was of three birds on May 3, and Mrs. Earl F. Olson at Norris saw 5 Grosbeaks on May 4 and one on May 6, the last record. The Swamp Sparrow was identified by Joseph C. Howell, the Junco by Mrs. E. E. Overton.

GREENEVILLE—Usual area about Greeneville, Tusculum, White's Mill, Nolichuckey River, Camp Creek Bald, Roaring Fork, Bluff Mountain. May 1, 1955; 5:30 a.m. to 7 p.m. Clear, temp. 42 to 80. 12 observers; Ruth Nevius, compiler. Mr. and Mrs. Nevius observed the Long-billed Marsh Wren and the Lincoln's Sparrow. The Dickcissels, seen by Mr. and Mrs. J. B. White, were three days earlier than the previous earliest record. The Whites also saw the Swamp Sparrow.

KINGSPORT—Within a triangle with points 2 miles west, 15 miles east, and 12 miles south of Kingsport. May 15, 1955; 4 a.m. to 7:30 p.m. Cloudy with showers in a.m., temp. 56 to 80. 14 observers; Thomas W. Finucane, compiler. The Red-breasted Merganser and Sora were identified by Mrs. R. M. Switzer, the Bank Swallow and Vesper Sparrow by T. W. Finucane, Grey-cheeked Thrushes by Finucane and W. E. Gift, the Veery and Savannah Sparrows by Gift, and the Prothonotary Warbler by Mr. and Mrs. W. B. Hincke.

ELIZABETHTON—Elizabethton to top of Roan Mtn. May 1, 1955. Clear and warm. L. R. Herndon, compiler. The Little Blue Herons were reported by John Luker, who had recently returned from Florida where he had photographed this species. An injured Evening Grosbeak was picked up on Stony Creek on April 28. The other birds marked in the table were observed only above 5000 feet on Roan Mountain.

BRISTOL—Washington County, including Mt. Rogers, Va., and Sullivan County, Tenn. April 17, 1955; 6 a.m. to 6 p.m. Clear, wind 0 to 10 m.p.h., temp. 70 to 80. Miss Angie Loyless, compiler. The Golden Eagles were seen by Randolph Shields on Mt. Rogers; also seen there were the Ruffed Grouse.

TABULAR RECORD OF SPRING FIELD DAYS

	Lakeview May 1	Reelfoot May 14	Humphreys Co. May 7-8	Nashville May 14	Chattanooga May 3	Knoxville May 1	Greeneville May 1	Kingsport May 15	Elizabethton May 1	Bristol April 17
Pied-billed Grebe	——	5	6	1	1	1	——	2	——	6
Dbl.-cr . Cormorant	——	15	*c	——	——	——	——	——	——	——
Water-turkey	3	——	50	——	——	——	——	——	——	——
Great Blue Heron	1	25	*c	1	——	5	1	——	——	——
American Egret	1	15	*c	2	——	——	——	——	——	——
Snowy Egret	——	100	——	——	——	——	——	——	——	——
Little Blue Heron	——	*	——	——	——	——	——	——	*2	——
Green Heron	4	3	4	12	1	7	3	5	2	——
Blk.-cr. Night Heron	——	*3	6	*85	——	——	——	——	——	——
Yel.-cr. Night Heron	——	——	2	6	——	——	3	——	——	——
American Bittern	——	——	2	——	——	——	——	——	——	——
Least Bittern	——	3	*3	——	——	——	——	——	——	——
Mallard	——	——	1	——	——	——	——	——	——	3
Gadwall	——	——	——	——	——	7	——	——	——	——
Green-winged Teal	——	——	——	1	——	——	——	——	——	——
Blue-winged Teal	1	6	10	22	7	1	8	6	2	4
Baldpate	——	——	——	——	——	8	——	——	——	——
Shoveller	——	——	3	2	——	——	——	——	——	——
Wood Duck	——	4	2	*4	*1	——	——	——	14	——
Ring-necked Duck	*2	——	——	——	——	——	——	——	——	——
Lesser Scaup Duck	——	3	——	——	——	1	——	——	2	——
Ruddy Duck	——	——	——	*2	——	——	——	——	——	——
Amer. Merganser	——	——	——	——	1	——	——	——	——	——
Red-br. Merganser	——	——	——	——	——	——	——	*1	——	——
Turkey Vulture	1	1	25	18	——	3	16	14	17	6

	Lakeview May 1	Reelfoot May 14	Humphreys Co. May 7-8	Nashville May 14	Chattanooga May 3	Knoxville May 1	Greeneville May 1	Kingsport May 15	Elizabethton May 1	Bristol April 17
Blk. Vulture	2	2	6	2	2	------	1	2	2	5
Sharp-shinned Hawk	------	------	------	------	------	1	------	------	------	------
Cooper's Hawk	------	------	------	------	------	1	4	1	1	1
Red-tailed Hawk	------	------	------	2	2	------	3	------	------	2
Red-should. Hawk	------	------	1	2	------	------	------	------	------	------
Broad-winged Hawk	*1	------	3	------	------	3	------	------	2	------
Golden Eagle	------	------	------	------	------	------	------	------	------	*2
Bald Eagle	------	1	------	------	------	------	------	------	------	------
Osprey	------	------	------	------	------	5	------	------	3	------
Duck Hawk	------	------	------	------	------	------	------	------	1	------
Sparrow Hawk	1	------	------	6	1	5	2	2	5	4
Ruffed Grouse	------	------	------	------	------	------	------	------	------	*2
Bob-white	7	4	13	42	11	45	3	8	15	6
Virginia Rail	------	1	------	------	------	------	------	------	------	------
Sora Rail	------	1	1	3	------	------	------	*1	------	------
Purple Gallinule	------	3	1	------	------	------	------	------	------	------
Fla. Gallinule	------	8	3	------	*5	------	------	------	------	------
Coot	------	15	60	8	6	------	------	------	------	------
Semipalmated Plover	16	------	42	12	------	------	------	------	------	------
Golden Plover	9	------	------	------	------	------	------	------	------	------
Killdeer	11	2	*15	43	8	35	18	17	11	4
Wilson's Snipe	1	2	1	1	8	------	------	------	1	------
Spotted Sandpiper	1	2	1	10	1	6	1	9	20	------
Solitary Sandpiper	15	1	12	4	7	9	13	1	9	------
Greater Yellow-legs	9	------	6	------	1	1	------	------	------	------
Lesser Yellow-legs	17	1	15	16	18	2	------	2	5	------
Pectoral Sandpiper	1	------	2	1	------	------	------	------	------	------
Least Sandpiper	------	------	------	65	------	------	1	1	5	------
Semipalm. Sandpiper	------	------	3	17	------	------	------	1	------	------
Ring-billed Gull	------	------	------	------	------	2	------	------	------	------
Laughing Gull	------	------	*1	------	------	------	------	------	------	------
Bonaparte's Gull	------	------	------	------	------	*6	------	------	------	------
Least Tern	------	2	------	------	------	------	------	------	------	------

Common Tern	—	—	—	7	—	—	—	—	—	—
Black Tern	—	2	—	2	—	—	—	—	—	—
Mourning Dove	19	40	fc	125	44	130	93	38	62	29
Yel.-bil. Cuckoo	3	1	4	33	—	4	1	5	2	—
Blk.-bil. Cuckoo	—	—	—	—	—	1	1	—	2	—
Screech Owl	—	—	—	1	—	—	1	—	—	—
Barred Owl	—	3	2	—	—	*1	1	—	—	1
Chuck-will's-wid.	—	—	8	—	1	12	6	1	—	—
Whip-poor-will	—	—	10	1	—	1	1	—	2	1
Nighthawk	*1	—	3	5	2	1	5	11	2	—
Chimney Swift	6	12	fc	fc	31	175	304	41	61	22
R. thr. Hummingbird	4	4	9	4	4	8	3	5	5	—
Belted Kingfisher	1	5	5	8	—	5	2	11	9	2
Flicker	3	2	5	7	16	32	30	27	40	21
Pileated Woodpecker	2	3	2	3	2	12	6	2	3	2
Red-bel. Woodpecker	10	7	5	9	7	15	4	2	—	10
Red-head. Woodpecker	7	2	2	5	11	9	11	2	—	2
Yel.-bel. Sapsucker	2	—	—	—	—	—	6	—	—	—
Hairy Woodpecker	1	1	3	6	—	—	3	—	1	—
Downy Woodpecker	5	4	6	19	8	14	10	4	12	11
E. Kingbird	8	15	fc	35	7	20	28	13	11	—
Crested Flycatcher	7	10	8	14	5	25	39	14	—	—
Phoebe	1	3	*15	22	6	36	44	16	35	7
Acadian Flycatcher	5	7	6	7	1	1	1	10	—	—
Least Flycatcher	—	—	—	3	—	—	—	—	3	—
Wood Pewee	9	10	c	45	4	9	15	25	4	—
Horned Lark	2	—	*4	2	—	1	—	4	—	—
Tree Swallow	4	2	3	1	2	—	—	—	—	—
Bank Swallow	—	—	45	—	—	—	—	*3	—	—
Rough-w. Swallow	4	1	12	32	8	65	24	26	52	12
Barn Swallow	5	1	15	40	4	21	70	4	5	2
Cliff Swallow	—	—	*400	—	42	—	—	—	48	—
Purple Martin	3	10	25	2	7	40	49	11	8	—
Blue Jay	22	6	fc	46	64	90	87	58	57	71
Amer. Crow	3	10	25	fc	26	82	74	35	109	61
Fish Crow	1	—	—	—	—	—	—	—	—	—
Carolina Chickadee	11	12	30	28	25	75	38	18	32	41
Tufted Titmouse	8	8	fc	fc	29	46	38	22	33	32
Wh.-br. Nuthatch	—	—	8	—	5	8	2	—	—	6
Red-br. Nuthatch	—	—	—	—	—	2	—	—	*4	—

	Lakeview May 1	Reelfoot May 14	Humphreys Co. May 7-8	Nashville May 14	Chattanooga May 3	Knoxville May 1	Greeneville May 1	Kingsport May 15	Elizabethton May 1	Bristol April 17
Brown Creeper	------	------	------	------	------	------	------	------	1	------
House Wren	------	------	------	1	------	3	6	19	4	6
Winter Wren	------	------	------	------	------	------	------	------	*4	1
Bewick's Wren	------	1	12	28	1	6	7	2	------	------
Carolina Wren	16	6	16	c	10	110	48	33	48	19
Long-bil. Marsh Wren	------	------	------	8	------	------	*1	------	------	------
Mockingbird	2	4	8	fc	29	150	88	54	51	31
Catbird	5	3	10	29	15	30	29	28	26	5
Brn. Thrasher	6	5	10	40	19	65	54	37	38	31
Robin	6	5	10	c	33	160	102	77	95	99
Wood Thrush	16	3	*12	20	31	85	34	59	23	26
Olive-backed Thrush	2	5	4	24	1	5	------	22	------	------
Grey-cheeked Thrush	3	1	------	4	------	------	------	*3	------	------
Veery	*2	1	------	------	1	------	------	*1	------	------
Bluebird	6	12	fc	6	17	95	70	11	40	19
Blue-gr. Gnatcatcher	11	6	*c	34	15	70	28	16	13	2
Gold.-cr. Kinglet	------	------	------	------	------	------	------	------	*1	------
Ruby-cr. Kinglet	3	------	1	------	------	5	1	------	------	2
Cedar Waxwing	14	80	40	41	1	51	------	20	17	------
Loggerh. Shrike	2	5	10	8	2	4	1	------	3	3
Starling	22	c	8	c	105	200	325	48	179	220
White-eyed Vireo	17	6	c	fc	7	47	18	17	21	------
Yel.-thro. Vireo	3	------	12	7	7	16	3	8	4	------
Blue-head. Vireo	2	------	------	------	------	4	2	------	5	2
Red-eyed Vireo	10	6	c	c	25	120	18	25	31	------
Warbling Vireo	3	10	7	8	------	6	1	5	1	------
Blk. and white Warbler	------	------	15	4	8	35	8	10	10	------
Prothonotary Warbler	23	15	12	11	------	1	------	*1	------	------
Swainson's Warbler	3	------	------	------	------	------	------	------	------	------
Worm-eating Warbler	------	------	------	------	------	3	1	1	1	------
Blue-winged Warbler	1	------	5	6	------	------	------	------	------	------
Tenn. Warbler	5	15	15	2	4	9	------	10	------	------
Nash. Warbler	------	------	1	------	------	------	------	------	1	------
Parula Warbler	6	3	2	1	------	------	------	5	6	1

Yel. Warbler	5	3	10	9	2	67	12	20	57	2
Magnolia Warbler	3	1	—	8	—	4	—	7	1	—
Cape May Warbler	—	—	2	—	3	4	—	1	1	—
Blk.-thr.-Bl. Warbler	—	—	—	—	—	—	6	1	6	—
Myrtle Warbler	24	12	15	8	19	135	19	1	37	—
Blk.-thr.-Gr. Warbler	1	—	4	6	1	17	2	12	—	—
Cerulean Warbler	—	1	10	24	—	3	—	6	—	—
Blackburn. Warbler	1	—	1	8	5	10	4	7	2	—
Yel.-thr. Warbler	2	5	6	3	2	7	—	—	—	—
Chestnut-sid. Warbler	1	1	1	5	3	3	3	2	2	—
Bay-breasted Warbler	—	1	1	24	—	9	—	27	1	—
Black-poll. Warbler	1	20	fc	28	6	3	3	2	—	—
Pine Warbler	—	—	—	1	6	7	—	2	3	—
Prairie Warbler	—	—	18	9	—	13	—	6	7	2
Palm Warbler	4	1	9	12	4	8	—	—	—	—
Ovenbird	1	—	3	12	6	11	7	10	8	—
No. Water-thrush	—	—	*2	1	—	—	—	—	—	—
Louisiana Water-thrush	6	1	9	14	—	3	5	3	2	1
Ky. Warbler	4	2	12	13	6	12	1	14	4	—
Yellow-throat	36	12	a	c	4	68	17	17	34	—
Yel.-br. Chat	17	12	c	42	9	60	25	53	30	—
Hooded Warbler	8	1	2	22	5	3	1	11	12	—
Wilson's Warbler	—	—	—	1	—	1	—	—	—	—
Canada Warbler	—	—	—	1	—	1	—	1	—	—
Redstart	18	15	20	10	—	2	4	19	24	5
House Sparrow	20	c	12	c	21	150	125	81	153	113
Bobolink	6	—	—	65	—	60	22	—	3	—
East. Meadowlark	29	12	fc	c	27	85	93	52	73	48
Red.-wg. Blk'bird	75	c	c	fc	22	160	116	14	23	40
Orchard Oriole	18	4	*c	c	20	48	25	17	9	—
Balt. Oriole	6	3	7	2	5	—	1	9	4	—
Rusty Blk'bird	—	—	—	—	*1	—	—	—	—	2
Purple Grackle	28	c	20	c	3	220	66	109	140	64
Cowbird	44	c	30	34	7	95	17	27	34	4
Scar. Tanager	3	2	8	8	2	15	—	13	1	—
Summer Tanager	6	4	fc	52	12	44	30	22	3	—
Cardinal	45	c	fc	6	46	210	117	76	99	80
Rose.-br. Grosbeak	15	2	15	4	20	8	—	3	1	—
Blue Grosbeak	—	—	—	—	5	1	—	—	—	—
Indigo Bunting	48	50	c	c	41	55	34	50	5	2
Paint. Bunting	1	—	—	—	—	—	—	—	—	—

	Lakeview May 1	Reelfoot May 14	Humphreys Co. May 7-8	Nashville May 14	Chattanooga May 3	Knoxville May 1	Greeneville May 1	Kingsport May 15	Elizabethton May 1	Bristol April 17
Dickcissel	120	25	c	70	—	—	*3	—	—	—
Eve. Grosbeak	—	—	—	—	—	*2	—	—	*	—
Purple Finch	2	—	—	—	12	—	—	—	—	8
Pine Siskin	—	—	—	—	13	—	2	—	1	4
Goldfinch	22	8	fc	42	25	325	103	44	125	140
Red-eyed Towhee	2	1	12	fc	60	140	63	53	44	35
Savannah Spar.	10	—	9	9	—	4	2	*2	3	2
Grasshopper Sparrow	—	—	2	4	5	14	5	23	8	—
Vesper Spar.	—	—	—	—	—	—	2	*1	2	1
Bachman's Spar.	—	—	—	—	—	2	—	4	—	—
Slate-col. Junco	—	—	—	—	—	*1	3	—	*30	2
Chipping Sparw.	—	3	10	fc	2	110	55	8	27	8
Field Spar.	4	10	fc	fc	19	110	85	53	52	10
Wht.-cr. Spar.	3	—	—	2	—	9	33	1	11	5
Wht.-thr. Spar.	20	1	6	6	70	165	84	5	54	23
Lincoln's Spar.	—	—	1	—	—	—	*1	—	—	—
Swamp Spar.	*3	—	—	—	1	*1	*1	—	—	—
Song Spar.	—	—	—	—	1	146	81	58	92	42
Total Species	112	108	130	129	100	124	106	110	111	69

THE ROUND TABLE

GOLDEN PLOVER NEAR CHATTANOOGA—On November 7, 1954, while making a circuit of sloughs where a few shore and water birds had been previously found, my husband and I observed a Golden Plover for thirty minutes. It was feeding on a mud flat on Long Savannah Creek. We were able to get fairly close and a 20x telescope made identification certain. Later the same day at a slough near Hixson, Tennessee, another Golden Plover was seen under similar circumstances. The two locations are about seven miles apart. There appears to be only one earlier record for this species in East Tennessee.—MRS. EUGENE M. WEST, 1625 S. Clayton Ave., S.E., Chattanooga 11, Tenn.

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THE KNOT RECORDED IN MEMPHIS—Inasmuch as Mud Lake had been dry since June, the only shorebirds found near by last fall were at the river's edge, on the northeast corner of President's Island. Yet even the handful found present each week-end yielded interesting birds, among which was a Knot (**Calidris canutus**). On September 11, 1954, Harry Landis, Jr., George Peyton, Jr., and the writer found it feeding there and studied it leisurely thru a 20 x 60 Balscope. However, the

Knot acted unafraid and a mutual approach had us too close to use 7 x 50 glasses. The plumage was identical with that of the juvenal pictured in "Portraits of New England Birds." Apparently this is the first record of the species for Tennessee.—BEN B. COFFEY, JR., Memphis.

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LONG-EARED OWL IN MEMPHIS.—On March 26, 1955, due to the fine cooperation of some Blue Jays, I was able to discover a Long-Eared Owl (**Asio wilsonianus**) roosting in a magnolia tree in Overton Park, Memphis. I almost passed it up, thinking the Jays might be scolding a snake, then realized it had turned much too cold for a snake, so I hunted the source of the annoyance. The owl was very cooperative and remained there for George Peyton, Jr., who joined me, and Ben B. Coffey, Jr., who came on call. A group of other local members were also able to add it to their life list, but the next morning we failed to find it. Last year, on April 3, I also found a Long-eared Owl in the park but in deciduous trees. Mrs. Coffey joined me that evening but we couldn't find it again.

Mr. Coffey told me he found one of these owls in the Ensley bottoms in early spring, about 1931, but he is unable to readily locate the record in his files. The second West Tennessee record and first published record was by Capt. Burt L. Monroe (Migrant, 15:15, 1944) of one found freshly dead, January 21, 1944, at the Dyersburg Air Base (at Halls) and brought to him.—HARRY LANDIS, JR., 22 N. Century, Memphis, Tenn.

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BLUE GROSBEAK IN GREENE COUNTY, TENN. — The first reported Blue Grosbeak (**Guiraca caerulea**) in Greene County was seen by Mrs. Chester Darnell on May 1, 1954. Five individuals seen the following day by Mr. and Mrs. Alfred Irvine were listed in "The 1954 Spring Field Days" (Migrant, 25: 32, 1954).

A summer record of a singing male was first made on June 15, 1954, on our farm north of Greeneville. He sang daily thru the remainder of June, intermittently thereafter until August 18 when he was last heard. He was seen alone except twice, July 4 and August 16, when he was accompanied by an individual we thought to be a female Blue Grosbeak. Considering two records of this species nesting in Knox County—by J. C. Howell (Migrant, 22: 44, 1951) and J. T. Tanner (Migrant, 23: 53, 1952), there seems future possibility of Blue Grosbeaks found nesting in upper East Tennessee.—RUTH REED NEVIUS, Greeneville, Tenn.

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BOOK REVIEWS

BIRD RECOGNITION, III. Rails, Game-Birds and Larger Perching and Singing Birds. By James Fisher. 158 p. Penguin Books, Inc., 3300 Clipper Mill Road, Baltimore 11, Maryland. 85c.

Volumes I and II of this series on birds of the British Isles have been reviewed in earlier issues of THE MIGRANT (June 1952 and June 1954). This, the third volume, is similar in plan to the others and maintains the same high standards. The larger groups of birds treated, with their relatives are the rails, game-birds, kingfisher and relatives, woodpeckers, crows, larks, thrushes, and swallows. Each species is illustrated and described on two facing pages. With maps, an ingenious chart, and skillful economy of words, a multitude of topics are covered: field characters, breeding habits, seasonal activities, movements, distribution.

Since the appearance of "A Field Guide to the Birds of Britain and Europe" by Peterson, Mountfort, and Hollom, one may well question the usefulness of the "Bird Recognition" series. The latter has two advantages: lower price and more information on each species. This series might be subtitled "The Little Encyclopedia of British Birds."—JAMES T. TANNER.

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NEWS AND NOTES

REPORT OF THE T.O.S. ANNUAL MEETING, 1955

The Tennessee Ornithological Society held its annual meeting on May 7 and 8, 1955, at Waverly, Tennessee, and vicinity. The meetings and field trips were very successful, and much of the credit for this is due to Mr. and Mrs. Eugene Cypert.

The first scheduled event was a field trip on Saturday morning to the Duck Rivery Rookery, led by Eugene Cypert. Members were able to reach the interior of the rookery by boats and by a boardwalk built by the Tennessee National Wildlife Refuge; it was a fine experience and a novel one. The birds seen here and at other places during the two day meeting are reported in the account of Spring Field Days in this issue.

The business meeting of the Directors was held Saturday afternoon in the auditorium of the Johnsonville Steam Plant, by courtesy of the TVA officials. The business transacted here and at the membership meeting is summarized below. Those members not involved in the director's meeting made field trips in the vicinity.

Saturday night a dinner was held at the Waverly School Cafeteria, with 77 members attending. Brief talks were given by Mr. Frank Langford, Waverly, and Mr. V. L. Childs, Manager of the Tennessee National Wildlife Refuge, with Mrs. R. A. Monroe, President, presiding. Mr. John R. Beck, University of Tennessee at Martin, reported on some of his research in a talk entitled "Some Aspects of the Life History of the Wild Turkey."

On Sunday morning field trips were held in the vicinity of Richland Harbor. Towards noon the annual business meeting was held on a wooded knoll at Richland Harbor, the bird list for the two days was checked by Ben B. Coffey, Jr.

Mrs. R. A. Monroe presided at the meeting of the Board of Directors held at 2 p.m., May 7. Twenty directors were present, all chapters being represented except Bristol and Greeneville. Reports were given by various officers. The Treasurer, Lawrence C. Kent, reported that 1954 receipts were $723.49 and expenses were $726.86, but that the $3.37 loss has been more than offset by a gift of $50.00 to the Society from the Memphis Chapter.

Dr. Lee R. Herndon, chairman of the Finance Committee, reported that the committee had concluded that the most satisfactory way of increasing the income of the Society would be to increase the membership. To this end a leaflet describing the T.O.S. to prospective members had been prepared by Mr. A. F. Ganier, using on the cover a drawing of a Mockingbird by A. C. Webb, the first president of TOS. The Knoxville Chapter had printed 2500 copies of this leaflet, and they were presented to the Society by Mrs. E. E. Overton, President of the Knoxville Chapter. These will be distributed by the presidents of the chapters and by the Membership Committee which consists of three Vice-Presidents.

The President commended Mr. Fred Behrend for his leadership in the hawk migration studies for the past several years, and stated that he should be relieved of this responsibility. Mr. Thomas Finucane, Route 1, Blountville, volunteered to assemble the reports for THE MIGRANT if the observers would send their reports to him.

The directors recommended to the members that Article V, Section 1, of the Constitution, which reads in part "The Sociey shall hold an annual meeting, each spring, at or near Nashville.", be amended by deleting the words "at or near Nashville". The purpose of the amendment is to allow greater latitude in the choice of a meeting place. The amendment passed in the business meeting on the following day.

The following officers were elected:

President: Lawrence C. Kent, Memphis. Vice President from West Tennessee: Eugene Cypert, Paris. Vice President from Middle Tennessee: Eugene Ruhr, Nashville. Vice President from East Tennessee: J. B. Owen, Knoxville. Treasurer: Rev. W. A. Hearn, Memphis. Secretary: Mrs. E. M. West, Chattanooga. Editor: James T. Tanner, Knoxville. Curator: Albert F. Ganier, Nashville. Director from West Tennessee: L. D. Thompson, Paris. Director from Middle Tennessee: Dixon Merritt, Lebanon. Director from East Tennessee: Mrs. E. E. Overton, Knoxville.

The next annual meeting will be held in the Nashville area on May 5-6, 1956.

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OFFICERS OF THE T.O.S. CHAPTERS

The Presidents, Secretaries, and Treasurers of the chapters of the Tennessee Ornithological Society are listed below. Mrs. Robert J. Dunbar, Secretary of T.O.S., has prepared this list.

Bristol—Mr. R. T. Krepela, Pres.; Mrs. H. C. Epperson, Sec.-Treas.

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Nashville—Mr. Eugene Ruhr, Pres.; Mr. Johnnie Ogden, Sec.-Treas.

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KNOXVILLE'S SUCCESSFUL MEMBERSHIP CAMPAIGN

The Knoxville Chapter of the T.O.S. made a special effort and planned programs this past year to interest more people in becoming members of T.O.S. The effort was rewarded by an increase in the membership of the chapter from 30 to about 50.

The first step was the preparation and printing of a leaflet entitled "A Bird's-Eye View of Knoxville's Bird Club"; this was all done by Mr. J. B. Owen. The leaflet described the T.O.S., activities of the Knoxville Chapter, membership dues and privileges, and useful equipment for bird study.

The 1954-55 program was centered around "Birds for Amateurs," and was planned largely by Mrs. S. R. Tipton. Some of the monthly meetings were: "How to Look at a Bird", "Bird Families", "Bird Banding and Migration", "Attracting Birds to Your Garden", "Bird Songs". Each month two kinds of fields trips were held. Beginner's bird walks lasting about two hours were held in three different sections on different week days; their leaders were Mrs. R. A. Monroe, Mr. W. M. Johnson, and Mr. J. B. Owen. The regular field trips were usually held on the third Sunday of each month and went to some area of special interest near Knoxville.

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The Altitudinal Distribution of Birds in a Part of the Great Smoky Mountains

By JAMES T. TANNER

Mt. LeConte in the Great Smoky Mountains rises higher above its base than almost any other mountain in eastern North America. On its northwestern side is a valley containing LeConte Creek. This valley is fairly broad and slopes gently from Gatlinburg up to an elevation of about 2600 feet above sea level where spreads a large orchard called Cherokee Orchard. From here the valley narrows and steepens, ascending to the the top of Mt. LeConte at 6593 feet. Above Cherokee Orchard the valley is covered with unbroken forest which is in its primitive condition except for a lower fringe of second growth. Because the axis of the valley is approximately east-west, one slope faces south and is drier and warmer than the opposite north-facing slope. The south-facing slope at lower elevations bears a forest of oak and pine, the latter being mostly on the ridge, with a heavy undergrowth of laurel and blueberries. This gives way to yellow birch and spruce at an elevation of about 4800 feet. On the north-facing slope at low elevations is a deciduous forest with a greater variety of trees, such as yellow poplar or tulip tree, maple, buckeye, and silverbell. Many hemlocks are present, often in dense stands. It is usually damp and cool here and there is little undergrowth except on some of the ridges where there are impenetrable stands of rhododendron. This mixed forest changes to one of yellow birch, spruce, and hemlock a little above 4000 feet. At higher elevations the forest on both sides of the valley contains birch, spruce, and fir, the two evergreens becoming more abundant near the top.

Cherokee Orchard can be reached by a road, and from there a trail climbs the valley to the top of the mountain. Thus we have a steep mountain valley that is easily penetrated, providing a good opportunity for field work. I used this area in making a study of Black-capped and Carolina Chickadees (Auk, 69: 407-424. 1952) and another study of Juncos. For the years 1951 thru 1954 I made notes on the locations of other species of birds during late May and June, the peak of the nesting season. In addition, Philip Huff and James Liles kept a record during 1953 of the birds they saw at the top of Mt. LeConte, and their observations are included with mine.

This paper is concerned with the elevations at which different species of birds are present during the nesting season in the LeConte Creek Valley, described above, from 2600 feet to the top of Mt. LeConte.

OCT 26 1955

Many of these species will extend either higher or lower in other parts of the Great Smoky Mountains.

Some kinds of birds were present at all of the elevations, from 2600 feet on up. In the case of Sharp-shinned Hawk, Broad-winger Hawk, and Chimney Swift, it is probable that a single individual bird may fly between the bottom and the top of the mountain in a short time. The species whose individuals are more sedentary but may nest from 2600 feet to the mountain top are: Ruffed Grouse, Ruby-throated Hummingbird, Flicker, Hairy Woodpecker, Downy Woodpecker, Blue Jay, Catbird, Robin, Cedar Waxwing, Black and White Warbler, Black-throated Green Warbler, Goldfinch, and Towhee. This makes sixteen species that have been observed at all the elevations studied during the nesting season.

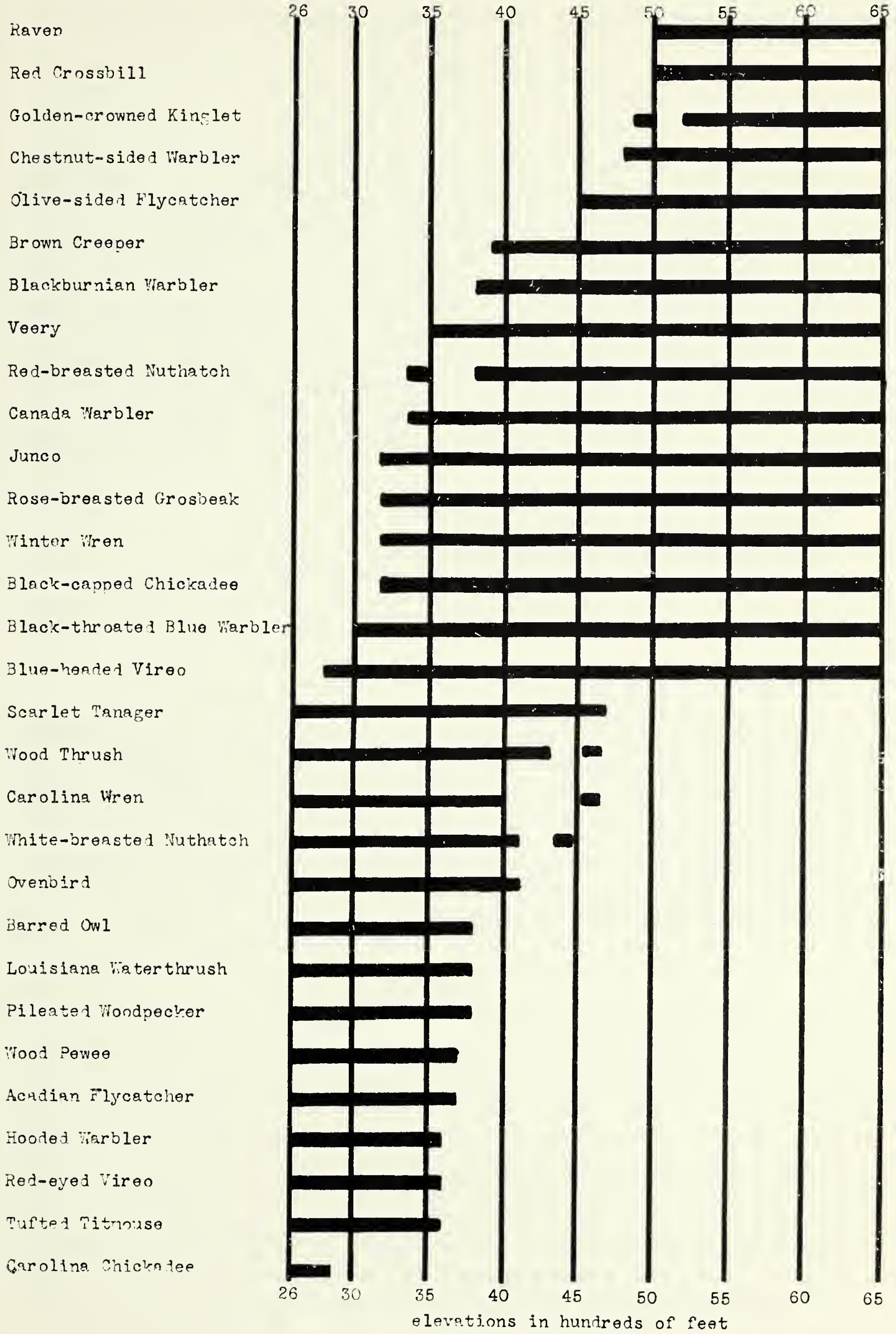
The thirty species of birds not found at all elevations, having either an upper or a lower limit in the area described, are shown on the chart. This extends from where the forest above Cherokee Orchard begins at 2600 feet to 6500 feet; the mountain is higher, but there is very little area above this elevation. The solid bar indicates the elevations at which each species was found; gaps are present in the bar only when there was an interval of at least 200 feet in elevation between records.

Most of the upper limits were on the warmer and drier south-facing slope. Some of the lower limits of birds found commonly at high elevations were in tongues of evergreens, usually hemlocks, that extend down the north-facing slope.

The Black-throated Blue Warbler provides a good illustration of how the density of a species usually changes toward the limit of its range. This warbler is common from about 4000 feet upward in LeConte Creek Valley; two or more birds may be heard singing simultaneously in many places, and squeaking in almost any area will attract a pair. Below 3500 feet the species is scarce and the pairs are scattered. The extreme lowest may be well separated from other Black-throated Blue Warblers, but the male sings regularly and the pair nests; they are like pioneers that have pushed ahead into the wilderness. The other species are similar in that the individuals or pairs become scarcer toward either the upper or lower limit. This could have been illustrated on the chart by having the bars end, not abruptly in a square end, but in a tapering point.

The bar on the chart shows the extreme high or low elevation at which a species was observed during the four nesting seasons. Few species were recorded at the same limit each of the four years. The lower limit of the Black-throated Blue Warbler and the upper limits of the Tufted Titmouse and Wood Pewee were practically the same from year to year, but most species showed considerable variation. These variations appeared to be random, making it illogical to attempt to find causes for them. Because the four-year record does show variations, it is to be expected that more observations in this area would extend the limits of many of the birds shown on the chart and also fill in the gaps.

After the nesting season many birds move up and down the moun-



ALTITUDINAL DISTRIBUTION OF BIRDS IN LECONTE CREEK VALLEY tain going well beyond their nesting range. Small flocks of crows, which are usually found only as far up as Cherokee Orchard, have occasionally flown up the valley as high as 5000 feet, and as another illustration, Golden-crowned Kinglets have moved down in late July at least to 4100 feet.

A study of this kind usually exposes more problems that it solves. Why are there several species with approximately the same altitudinal limits, such as the concentration of lower limits at 3200 feet (see chart) and of upper limits between 3600 and 3800 feet? Why are there no species with lower limits of above 5000 feet? It is generally true that closely related species of birds do not occupy the same habitat or range; this is illustrated by the altitudinal separation of the Black-capped and Carolina Chickadees (see chart). But other pairs of related species show altitudinal overlap: Veery and Wood Thrush, the two Nuthatches, Canada and Hooded Warblers, Blue-headed and Red-eyed Vireos. Are there habitat or other ecological differences separating the members of these paired species?

DEPARTMENT OF ZOOLOGY
UNIVERSITY OF TENNESSEE, KNOXVILLE

NEWS AND NOTES

On October 1 and 2, 1955, members of the T.O.S. met with members of the Carolina Bird Club at Fontana, N. C. About 16 attended from Tennessee; Lawrence C. Kent, president of T.O.S., Albert F. Ganier, and Arthur Stupka participated in the program of field trips and talks.

Thomas W. Finucane, Route 1, Blountville, volunteered to coordinate and report observations of hawk migrations this fall. Any data on migrating hawks should be sent to him.

Notes of the Blue Grosbeak in the Mid-South

By BEN B. COFFEY, JR.

During my second spring at Memphis I added the Blue Grosbeak to my life-list, but it was twenty-four years later before I myself saw a second one here. While on an extensive hike with Lester Goldsmith, May 12, 1929, my attention was attracted to a singing male which allowed adequate observation. We were on Mitchell Road, between the two lines of the Y&MV RR; the spot, visited frequently and hopefully since, is now near the east edge of T. O. Fuller State Park, southwest of town. Apparently this is the first known record of the species for Tennessee. Not heretofore published, it was mentioned (Migrant 16:30, 1945) in an editorial footnote, the date being given as May 11, a day earlier than shown on my field card. On June 21, 1953, my first chance to visit the Shelby County Penal Farm that summer I heard a Blue Grosbeak singing. Dusk was falling, so I postponed more investigation. On June 25 I watched him and searched the area without finding a female or immature birds. On subsequent dates I failed to find him.

For the interim there have been only two definite records in Shelby County. Meanwhile the species has been a favorite of mine, its soft warbled song having a quality, to me, like the notes of the Summer Tanager. In delivery I compare it with the Orchard Oriole as an arbitrary "fix". The song can be picked up at some distance. One of the delights of a visit to Memphis camps in the Ozark foot-hills was finding this grosbeak in several spots there. On Mississippi trips some distance from Memphis, during a stay at Ft. Sill, Oklahoma, and at various localities (open, highland country) along Mexican highways, we have always enjoyed seeing Blue Grosbeaks.

The first reference I find in THE MIGRANT (1931:14, or page 6 of the June issue) is where the editor quotes some results of two Memphis field trips, probably from letters or field cards sent to him. The record was of a singer seen May 3, 1931, by Mrs. Coffey; the locality about three miles south-southwest of the 1929 bird. Franklin McCamey evidently had this in mind when he records a female, Aug. 5, 1935, as the first of the species in four years (Migrant 6:53, 1935). Ensley Bottoms, where he and George Foster saw this bird, is just west of the other two records, and in an area worked frequently then. I was somewhat surprised to find one other record, that of one on the Memphis Spring Field Day, May 15, 1949, (Migrant 20:36, 1949). Altho I was the compiler, I do not know who made this report, and like some other field day records of unusual species, here and elsewhere, I consider it questionable. It may have been in Mississippi or in Tennessee since Lakeview is on the state line. The latest county record was on July 16, 1955, when George Peyton, Jr., and I found a singing male on Hall Road and a second on Macon Road, south and east of the intersection of these roads. Previous records were of casuals—these were probably summer residents.

Benj. R. Warriner (Migrant 16:24-26, 1945) reports quite a number of Blue Grosbeaks near Corinth, Miss., and north into Tennessee during the summer of 1945; his only previous Corinth records were in 1937 (Migrant 8:36-37, 1937). Possibly pockets of this species have persisted east of us, but we have worked certain areas intermittently for a number of years without finding them. On July 6, 1947, we found a pair with three young, at the Tenn. 18 bridge over the Southern R. R., Grand Junction, Tenn. Two pair were reported there July 15, 1951 (Alice Smith and Floy Burford), and the species has been noted there regularly since. The only other records from West Tennessee trips have been: July 5, 1953 (BCs, RDS), one south of Falcon; July 11, 1953 (BCs), one west of La Grange and one west of above bridge; July 10, 1955 (BC, A. Ziegler), two males and an immature, east of Moscow, and one male south of above bridge.

Until 1953 I considered the Blue Grosbeak fairly common in Mississippi, north to Oxford, Pontotoc, and Aberdeen, but absent from the northern tier of counties, which we have visited at intervals. Mrs. Coffey, and to some extent, her sister, Mrs. Floy Burford, have visited their home at Hickory Flats frequently during the last 25 years. On July 4, 1953, I awoke to our first Blue Grosbeak song there; a short swing south and east located three others, and enroute to Blue Mountain there were two other singers. R. Demett Smith, Jr., independently found one near Ashland, before joining Mrs. Coffey and me at Blue Mountain. From there to Tishomingo State Park via Booneville we found one occasionally and, just east of the park, a nest with three young about eight days old. On July 4 we found the species toward and near Iuka, but north of Iuka found only one. On July 26 (BCs) one more was found north of Hickory Flat and four near Holly Springs, but none from there towards Memphis. The only rechecks were in 1954 at Tishomingo and Iuka, without results, and in 1955 at Hickory Flat with the species still present at several places. To the north, in the Ashland area, one was seen June 19 (BC) and two others June 29, 1955 (RDS). North of Holly Springs, two were seen July 10 (BC, AZ) and north of Byhalia, near the Tennessee line, two males on June 19, 1955 (the S. J. Rinis).

To date the species has been reported rarely from the Delta. On June 2, 1935, our heron banding party saw three males and a female at Good Hope. At Rosedale, M. G. Vaiden has reported in these pages three collections (early 1952 and 1953) and a previous sight record.

In East Arkansas the species is found northwest of the Black River; in some areas one may be heard at almost every stop. Elsewhere my records are: Jonesboro, July 5, 1954, two localities west; Lonoke, 1954: July 11, a pair at Anderson's, and July 26 (Brooke Meanley), another nearer town.

The species should become more common in West Tennesee, from the Grand Junction pocket and those just south of the state line. In Middle Tennessee Mrs. A. R. Laskey reported the first near Nashville, May 19, 1945 (Migrant 16:30, 1945) and many points in East Tennessee have reported the species in recent years, the first being apparently for May 4, 1943 (Migrant 17:68, 1946).

672 NORTH BELVEDERE BLVD., MEMPHIS 7, TENN.

The Round Table

WOOD IBIS NEAR TULLAHOMA.—On August 10 and 11, 1955, two of these birds were seen at the upper end of Woods Reservoir near Tullahoma. The reservoir is a lake produced by a high dam across Elk River. They were seen by Carlos Fetterolf, District Biologist of the State, while engaged in fisheries investigations. The Ibis were in company with herons and shorebirds feeding along mudflats exposed by the low water of late summer. These post-nesting-season wanderers from the Gulf Coast region are frequently reported along the Mississippi River near Memphis, but this is the first Middle Tennessee record that I know of.—ALBERT F. GANIER, Nashville 12, Tenn.

———o———

LATE SPRING RECORD FOR LESSER SCAUP DUCK—During the last three days of May 1955, my wife and I observed a female Lesser Scaup Duck accompanying a Pied-billed Grebe on Mt. Lake, Tracy City, Tenn. I suspected that the duck might be wounded, but it dived and swam under water very well and when frightened pattered along the water surface and flew in a normal manner. I was able to approach within ten feet of both grebe and duck by swimming slowly with flipper feet and with my head protuding only slightly above the water surface. By June 1, both birds had disappeared.—HARRY C. YEATMAN, Dept. of Biol., Univ. of the South, Sewanee, Tenn.

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FIRST RECORD OF SANDERLING AT WATAUGA LAKE—On Saturday afternoon, Sept. 3, 1955, Howard P. Langridge and Russell Parris discovered a Sanderling (**Crocethia alba**) on the mud flats near the Roan Creek Boat Dock, where Roan Creek empties into Watauga Lake in Johnson County, Tenn. Watauga Lake had been drawn down several feet during the past month, leaving extensive mud flats for about a mile in this area as well as less extensive areas at several other places along the lake shore. This bird was in excellent fall plumage and stood out in contrast to the Killdeers and Semipalmated Plovers with which it associated. It was studied at length thru 7x50 binoculars, in good sunlight and at a distance as close as twenty-five feet. The following morning Mr. Langridge and the writer returned to the same location to find two Sanderlings amongst a variety of other shore birds. The second bird was in less distinctive plumage than the first. The large black bill and legs set them apart from all the other birds. At least one of the two birds was observed at the same location by several of our members on the two succeeding week-ends. On our annual fall field day, September 24, they were not to be found in the original area, but John Luker found two Sanderlings on the mud flats between the Butler and Cove Ridge Boat Docks, near the town of Butler. Since this was their first recorded occurrence in this area, they might have been driven off their normal course by the hurricane on the Carolina coast two weeks previous.—LEE R. HERNDON, Elizabethton, Tenn.

This appears to be the first record of the Sanderling in Tennessee.—ED.

JEWELS IN THE JEWELWEEDS—Members of the T.O.S., Nashville, enjoyed an unusual treat in visiting a remarkable concentration of Ruby-throated Hummingbirds.

On our September field day of 1954, H. E. Parmer and I went up Jocelyn Hollow to the springs, expecting to find warblers concentrated in the dense woods about the springs and the small stream that trickles down the valley. We were successful in reporting a good list of warblers; but when we reported 15 hummingbirds, some members of the club were skeptical.

This spot is one of natural beauty, a long, narrow valley surrounded by hills and covered, both valley and hills, with the finest growth of virgin timber I have seen in years—poplar, beech, oak, and many other varieties. From the head of the hollow two springs feed the stream which trickles along over rocks or widens out over rich silt flats twenty to sixty feet wide. This continues for some four hundred yards, and then the stream disappears. Along this entire distance yellow and orange jewelweed grows abundantly, standing from four to six feet high. Last September, like this one, was very dry, and hence there were few flowers for hummingbirds to visit; therefore they had concentrated in this spot.

On Saturday September 17 of this year, H. E. Parmer and I made the trip again to this valley, and at the count at the end of the field day we reported 35 hummingbirds. Since that time various members of the local chapter have visited the springs with amazement. On September 20, Mr. and Mrs. A. F. Ganier, Mrs. W. F. Bell, Miss Jennie Riggs, and I went back to make a more careful count. An accurate count was, of course, impossible, but by using the best system we could devise, we placed the number between 60 and 100. At one place there were 12 around me within a space of twenty yards. About one in every six was a mature male, and when he spun through a straggling ray of sunlight, his throat gleamed like the jewel from which he derives his name.

If you have a damp spot with deep, fat soil and plenty of shade, plant jewelweed and enjoy a hummingbird circus in summer and early fall.—B. H. ABERNATHY, Nashville, Tenn.

EARLY TREE SWALLOW MIGRANTS—At the end of July 1955, May Franc Knight and I observed eight Tree Swallows sitting on a telephone wire. We feel sure there were more around, but, as those on the wire flew and milled about, we were never quite able to verify a higher count. Their behavior indicated that they were in migration. Tho we know that, within their nesting range, they are about the first birds to flock after the nesting season, this seems to us decidedly early for Tree Swallows to have reached this point in migration from their usual nesting grounds. We were next able to observe Tree Swallows, and these undoubtedly in migration, on Sept. 10.—DIXON MERRITT, Route 6, Lebanon, Tenn.

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HORNED LARKS NESTING AT SEWANEE—On April 19, 1955, my wife and I observed an adult Horned Lark on a fencepost near University Farm Pond, Sewanee, Tenn., and suspected that it might be one of a breeding pair. On April 20 two adults were seen carrying food from the road into a nearby field. On April 21 we made a special effort to locate the nest or fledglings by watching the adults. Within a few minutes my wife had located a particular spot in an old cornfield where an adult had alighted, and she promptly found a bob-tailed young Horned Lark just out of the nest. We photographed the bird, but were unable to locate the nest or other young because of an approaching rainstorm. We continued to see and hear Horned Larks during May, June, and July.

For the past six years I have been compiling an annotated list of birds for this area and this is the first breeding record for this species at Sewanee. Looking through back issues of THE MIGRANT and THE AUK, I found it quite interesting to follow the southward invasion of the Horned Lark as a breeding species. In this part of the state it had been observed in June 1945 as far south as McMinnville, which is almost due north of Sewanee, but no nests were located. Southeastward, it has been found nesting at Rome, Ga. (1950), and slightly southwestward at Leighton, Ala. (1942). At Sewanee's band of latitude, its southward invasion has been more gradual, possibly due to the scarcity of cleared land in this plateau region.

The Horned Lark is only one of many species extending their breeding ranges in Tennessee. The Lark Sparrow and Dickcissel are moving eastward, the House Wren and Blue-headed Vireo southward, the Song Sparrow southward and westward, and the Blue Grosbeak northward. HARRY C. YEATMAN, Dept. of Biol., Univ. of the South., Sewanee, Tenn.

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BLUEBIRDS IN A MARTIN HOUSE—Purple Martins did not come to our box at the usual time last spring. Both English Sparrows and Starlings undertook to occupy it, but we prevented them. Then a pair of Bluebirds built a nest in one of the four apartments and hatched a clutch of eggs. On a Sunday morning in early May the Martins arrived, four pairs of them, eager for homemaking. Battle raged thruout that Sunday. Never, I believe, have I seen anything else fight as those parent Bluebirds. By sundown they were complete victors. All the Martins had given up the fight and gone, and none of them ever returned.—MRS. FRANK HOLLOWAY, Route 6, Lebanan, Tenn.

LARK SPARROWS NEAR NASHVILLE—On a hot July 9, 1955, a small group of T.O.S. members, under the leadership of Albert F. Ganier, set out in an easterly direction from Nashville to cover fields where Mr. Ganier had found Lark Sparrows some years before. Parts of the area had become unsuitable for sparrows, so we had little success at first. As we were about to give up, our car flushed a flock of Lark Sparrows that had been dusting in the road. After following and carefully studying them, 8 immature and 4 adults were identified. The birds stayed in the same area as we ate lunch.

The exact location of the birds was four miles east of Gladeville in Wilson County, Tennessee, along a dry creek bed.—JOHN OGDEN, 515 Fairfax Ave., Nashville 12, Tenn.

The Season

MEMPHIS—Following the winter's low of 11° F. on Feb. 11, early March was much warmer than usual, but the last half, colder. March 26 was the third coldest day of the winter; widespread new growth was killed then, and at Coffey Grounds no fruits appeared later on the several wild black cherries there. The number of birds there seemed lower than in some time; results elsewhere generally agreed with this. Temperatures in April and May were above normal, July and August less so, while June was 4° above average. Precipitation, after three dry years, turned the corner in February; April's 12 inches were 7 above normal, and the next three months varied at scattered locations between normal and 50% above. With a last good rain on August 22 and some on August 29, it became dry and hot until drizzly Sept. 24. The river rose from 2 feet, Feb. 5, to 35.3 (flood stage, 34) feet on April 2, highest in three years, filling dry sloughs. It then dropped rapidly; in August it reached zero and was —3.4 on Sept. 24.

Early transients were earlier than average, with 3 Purple Martin on March 2 and 22 Golden Plover on March 4 (earliest) at the Penal Farm. But the first indication of a general movement of small land birds in Overton Park was April 6 and 7, according to George Peyton, Jr., Harry Landis, Jr., and David Brown, who faithfully visited the park. A scattered few followed, arrivals being then behind schedule. The next influx noted was on April 16 and early species became fairly common in the next week. The Tennessee and Nashville Warblers and Redstarts, altho first noted on April 16, were unusually scarce, only the Redstart becoming common later. The best influx was noted on April 23, but the Spring Field Day at Lakeview, Tenn.-Miss., on May 1 reported few transients. David Brown found moderately heavy warbler migration in Overton on May 9 and 10.

Unusually early were: 1 Barn Swallow on March 26 at Penal Farm (GP, HL, DB); 1 Olive-backed Thrush on March 27 at Spring Lake State Park, Miss. (S. J. Rini and LC); a male Ruby-throated Hummingbird on March 30 (Mrs. Frank Loughlin); 1 Palm Warbler on April 4 at Overton (HL); 1 Lincoln's Sparrow on April 12 at Penal Farm (BC). Of interest earlier was a male Dickcissel which evidently wintered in this country, seen by Harry Landis in or near his yard on March 13 and 20 (also LC, A. Smith) and April 4 and 5. Early plowing as last year possibly caused the Golden Plover to skip areas of former abundance just south and west of Tennessee borders, but they built up on the Penal Farm pastures with flocks totaling 303 on March 19 and 540 on March

26; 42 were seen just inside Fayette Co. (near Fisherville) on March 19 (GP, BC). At the Penal Farm on May 15 I totaled 322 Kingbirds, 900 Bobolinks, and 13 Semipalmated Plovers.

An adult Yellow-crowned Night Heron was at the Penal Farm July 9 and 16, and Mud Lake on July 23 (BC, GP) had over 200 American Egrets, a few other Herons, and 3 immature Wood Ibises. No Snowy Egrets were seen subsequently and on August 27 only 2 American Egrets, but the Little Blue Herons were up to 40 immatures and 30 adults. There were two to three inches of water on Sept. 10; the immature Little Blues were there, 80 American Egrets, shorebirds, and, with no one to share the sight with me, 400 Wood Ibises! This was the largest flock I have ever seen and our first in some seasons. On Sept. 18 only two room-sized pools of water were left, but the Little Blues remained plus 32 Blue-winged Teal. About 100 Pectoral Sandpipers and 40 Killdeers were present on both dates, plus, on the respective dates, 15 and 5 Lesser Yellowlegs and 2 and 1 Greater Yellowlegs. The Penal Farm yielded only 2 Upland Plover and only on July 16 and August 21; a few others may have been in the high grass. Our earliest ever Golden Plovers were 3 there on July 27 (HL). The northeast corner of President's Island was frequented after July 28 by small numbers of the five common sandpipers plus the Semipalmated Plover. Then on August 6 (GP, Richmond Gill, Jr.) a Knot in mixed plumage was the second Tennessee record (first at same spot, Sept. 11, 1954). Oliver Irwin began almost daily visits, getting a Black-bellied Plover on Sept. 11, 5 to 6 Golden Plovers on Sept. 12 (both thru Sept. 17, BCs), with 2 Goldens on Sept. 22. Caspian Terns (Irwin) seen were 3 on Sept. 11, from none to 6 later, then 15 on Sept. 22 and 16 on Sept. 24, the largest number of this species ever reported here and the longest period of records.

Several nights' work listed more summer Whip-poor-wills in our three states, including northwest of Lexington and north and south of Rogers Springs in West Tennessee. Five new bridges on Tenn. 14, northeast of Raleigh, had a Phoebe nest each on June 25. A Cerulean Warbler was listed at Natchez Trace State Park on May 8, Chickasaw State Park on June 26, and several in Shelby Forest (Nature Trail) on June 25. Swainson's Warblers were also noted in the last two instances. Scarlet Tanagers were seen June 26 at Chickasaw State Park, a former site near the group camp, and four miles east of Jack's Creek on the road to Lula. A Lark Sparrow on July 23 (GP, BC) was the second record ever for the Lakeview, Miss., levee.—BEN B. COFFEY, JR.

NASHVILLE — The Nashville area was fortunate in having the coolest early summer in years. The cool weather extended well into July, and was accompanied by good rains. Since the middle of July, however, there has been a considerable drop in rainfall and increase in temperature, tho neither the heat nor the drought has equaled that of the last three summers. Mr. Ganier says, "It has been the greenest summer in a number of years." Our bird population seems to have been about the same as usual, judging from reports which have come in.

There are few late spring records of note, but worth mentioning is an Alder Flycatcher found lingering in the Ashland City Marsh May 31 by by Weise and Ogden. Four Coots were seen at the same location that day, and on July 1 Weise saw 1 Coot in this marsh.

Nesting records of interest are as follows: May 31, a nest with eggs of Least Bittern in the marsh near Ashland City (Ganier, Weise, Ogden); May 2, two active nests of Green Herons in pines at Basin Springs (KAG); April 9, 50 Black-crowned Night Herons with eggs in the nest in the heronry on White's Creek Pike again (Weise); May 31, a pair of Wood Ducks with young in the Ashland City marsh (AFG); a nest of the Carolina Wren with fresh eggs on August 20, but the birds did not incubate them (AFG).

Mr. Monk reports five active nests of Mourning Doves in or near Centennial Park during the first half of September, the last activity being a parent brooding large young in the nest Sept. 17; the birds were gone next day. Dr. Mayfield and the Tennessee Game and Fish Commission report that there has been an increase in Mourning Doves this year. The consensus among observers in our area is that the breeding season for birds has been better than usual this summer.

We have not had reports of wandering or migrating warblers in July as we did in 1954. Our earliest dates this year are: August 20, 1 Black-throated Green (SMB); August 25, 1 Canada (JO); August 27, 1 Magnolia; August 29, 2 Blackburnian; August 30, 1 Wilson's (all by Weise); Sept. 2, 1 Chestnut-sided; Sept. 4, 1 Golden-winged (JO); Sept. 9, Ovenbird (ARL). Early migrants among water birds were: August 14, Solitary, Least, and Spotted Sandpipers (JO); August 27, 2 Snowy Egrets, 5 Green-winged Teal, 10 Blue-winged Teal, 1 White-rumped Sandpiper (CMW); August 30, 1 Pied-billed Grebe, 2 Marsh Hawks, 1 Osprey, 1 Wilson's Snipe, 12 Common Terns, 230 Black Terns (CMW). Mr. Monk heard the call of the Upland Plover the nights of August 4 and 8.

In comparing the record of our Sept. 17, 1955, Field Day with that of Sept. 18, 1954, I find that we had 100 species last year and 101 this year. Fourteen species of warblers were reported last year, 21 this year; nine species of water birds were reported last year, ten this year. Offsetting these gains, however, were the absences of several species this year which were reported last year: Grey-cheeked Thrush, Red-breasted Nuthatch, Black-billed Cuckoo, Lark Sparrow, and others.—SUE M. BELL.

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LEBANON—Last fall, the third in a series of drought years, we reported Bluebirds abundant thruout our area, while every other chapter reported a dearth. This year, a normal one as to precipitation and temperatures, our abundant Bluebird population has been maintained tho apparently not increased from last year.

What, if anything, is exceptional as affecting Bluebirds in our situation? We have made some observations, and consequent speculation if not deduction, which we wish to report for consideration.

We have found Bluebirds nesting much higher above ground than they have done before within this century, since they were forced by an alien enemy to adopt a nesting system which put them near enough the ground that English Sparrows would not interfere. In my own yard, for thirty years, Bluebirds nested in a hole in a garden fence post exactly five feet from the ground. Last year they abandoned that site for one in a nearby shade tree nearly twenty feet from the ground. This year they continued at the tree site. Tho they did much flitting about he fence post, they did nothing about building a nest there. In a case which Mrs. Holloway reports in a "Round Table" note, a pair of Bluebirds nested in a Martin box fifteen feet from the ground. There was a great deal of trouble with both English Sparrows and Starlings, and later, with at least four pairs of Martins. The Bluebirds successfully defended their home and family and reared at least two broods in the Martin box this year. These are the striking cases among several.

Are our Bluebirds, in addition to returning to their former high nesting sites, developing a pugnacity which enables them to defend themselves against all comers? Are these things peculiar to the Bluebirds of our area or are Bluebirds generally developing these traits? You tell us; we are puzzled.

As to my own yard, it should be stated that there was little chance of English Sparrow molestation. My place has been practically free of English Sparrows for several years. This is not true of other places at which Bluebirds were observed nesting high.

Barn Swallows are nesting thruout our area in much greater numbers than ever before within our time. My own barn, which I have observed for seventy years, contained Barn Swallow nests this year for the first time. There has been no observable change in environment. DIXON MERRITT.

CHATTANOOGA—Because of the writer's absence from the state between May 9 and June 19, spring and early summer observations are relatively incomplete. The presence of Great Blue Herons and American Egrets on April 3 indicates that there may be a rookery not far away. The Black-crowned Night Herons that roost daily for about three weeks in March and April in a magnolia tree at the residence of Mrs. Jack Thompson were back this year. A Canada Goose spent several weeks until at least May 1 at Chickamauga Dam, allowing a close approach by the many visitors at the damsite. About 15 Bonaparte's Gulls were seen at Chickamauga Dam on March 26 and April 3 (first record).

About 390 active Cliff Swallows nests within hand's reach (from a boat) were observed at Hales Bar Dam lock wall on May 2. Mr. C. L. Boyd, Hamilton County Conservation Officer, reports a wild Turkey hen on August 30. He also observed, on July 19, 7 female Wood Ducks near Hales Bar Dam with only one half-grown young. Several of the females were seen to leave nest holes, which seems late for nesting. Two families of Red-headed Woodpeckers were feeding young in the nest in mid-August, also late.

In spite of generally late spring arrival dates, a Prothonotary Warbler was recorded April 10. Several warblers normally recorded in the spring were not seen at all this year. There was also a scarcity of single records of uncommon or rare migrants, several of which are usually added to the records each year.

Blue Grosbeaks apparently had a successful season in Chickamauga Park, Ga., with two sets of young on August 11. The younger set appeared to have been out of the nest about ten days. An increasing number of singing males have been observed this year in portions of Chattanooga. In spite of several Bachman's Sparrows and one definite nesting in Chickamauga Park in 1954, not a single individual was seen or heard this year.

An early Blackburnian Warbler was seen on August 4. A Myrtle Warbler was seen by Mrs. Jack Thompson on August 11 and by the writer on August 20; both dates are weeks ahead of normal. A Wilson's Warbler, the first seen here in the last three years, was seen on Sept. 23. ADELE H. WEST.

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KNOXVILLE—After a warm beginning, spring was stopped by a cold snap on March 26 which tumbled the temperature to below 20° for several consecutive nights. Possibly as a result of this a number of birds that usually arrive in early April were a few days late; these include Rough-winged Swallow, Barn Swallow, Wood Thrush, Blue-gray Gnatcatcher (on April 9), Black-and-white Warbler (on April 11), Yellow Warbler (on April 15), Black-throated Green Warbler, Yellow-throated Warbler, and Louisiana Waterthrush. Those in the above list for which no dates are given were only a few days behind their average arrival date. On the other hand, making it difficult to try to analyze these things, the following species arrived on the earliest dates we have recorded: Tree Swallow, March 20; Catbird, April 3; Tennessee Warbler, April 20; Cerulean Warbler, April 12; Bay-breasted Warbler, April 24; Orchard Oriole, April 15; Summer Tanager, April 12.

A Coot, remaining later than usual, was reported on May 15.

The summer season was nearly normal in climate for the first time in several years. Perhaps as a result of this there were two records of what seemed to be unusually late nestings: a Towhee was incubating during the week ending August 20 (Neal Sanders), and a Cardinal was observed feeding a begging juvenal on October 2 (JTT).

On August 28 an Avocet was observed near Powell Station, Knox Co., by J. C. Howell and Mrs. R. A. Monroe; this is the second record for this area. Unusual birds seen on the Fall Field Day on Sept. 25 were 2 Bald Eagles, 2 Duck Hawks, 1 Virginia Rail, 2 Pectoral Sandpipers, 2 Northern Waterthrushes, and 1 Blue Grosbeak (latest ever). On Sept. 14, J. B. Owen found a Mourning Warbler, the second fall record for this area.

The following records are earlier-than-usual fall dates: Wilson's Snipe, August 28; Black-billed Cuckoo, Sept. 11; Red-breasted Nuthatch, Ruby-crowned Kinglet, and Swamp Sparrow, all on Sept. 25.—JAMES T. TANNER.

GREENEVILLE — Adequate rainfall of spring and early summer preceded present drought conditions. Observations were mainly of the usual.

A pair of Blue Grosbeaks present thru May and June may have nested. Shrikes nested at Tusculum (Irvine) and Lick Creek (Nevius). A pair of Yellow-crowned Night Herons returned April 15 to the site of last year's nest but did not nest there. Others may have nested in the area, for on April 22 six individuals were seen together, a pair frequented a woodland bordering Grassy Creek, and at a pond four miles away one was shot by a farmer intending to protect his fish.

Downy Bobwhites reported seen the second week of September seem an instance of late nesting. Alfred Irvine found two Wilson's Snipe Sept. 9 and 10.

White-eyed Vireos were still here Sept. 15 (Helen White) and Sept. 22. Blue-gray Gnatcatchers were scarce by September, single individuals being seen Sept. 3, 11, and 22. Two Blue Grosbeaks were seen on Camp Creek Bald August 7 (Clemens).

Late afternoon flocks of around 500 Nighthawks fed and moved southwestward down the valley paralleling the Unakas Sept. 5 and 6 (Clemens, Darnell). Other migrants include a Yellow-throated Vireo Sept. 14 (Darnell), two Redstarts Sept. 16, a Cape May Warbler Sept. 18 (White), Palm Warblers Sept. 18 (Darnell), Black-throated Green Warbler Sept. 21, Rose-breasted Grosbeak Sept. 21 and 22, Magnolia Warbler Sept. 22. On a Sept. 18 field trip to Rich Mtn., T.O.S. members found Olive-backed Thrushes abundant.—RUTH REED NEVIUS.

ELIZABETHTON—The season in the vicinity of Elizabethton has been about normal with respect to temperature and rainfall except the month of June was rather dry with only 1.78 inches of rain and for the first twenty-one days of September there has been only 0.15 inches. May, July, and August had 2.93, 3.28, and 3.82 inches of rainfall respectively.

Some noteworthy seasonal records have been: an adult Yellow-bellied Sapsucker, June 25 and August 31; immature Little Blue Heron, July 18; Spotted Sandpiper, Aug. 5; American Egret, Aug. 7; Cerulean Warbler, August 11; Woodcock, August 14; Great Blue Heron, August 21; Osprey, August 21 and Sept. 17; Chestnut-sided Warbler, August 18; Worm-eating Warbler, August 20; Pied-billed Grebe (14), Magnolia Warbler, Blackburnian Warbler, Bay-breasted Warbler, and Canada Warbler, all on August 31; Semipalmated Plover, Wilson's Snipe and Sanderling (see "Round Table"), all on Sept. 3; Tennessee and Nashville Warblers, Sept. 1; Pectoral, Semipalmated, and Western Sandpipers, Sept. 4; Olive-sided Flycatcher, Sept. 9 (third record for the area); adult Bald Eagle, Sept. 11. The shore birds observed on Sept. 3 and 4 were all on the mud flats near where Roan Creek empties into Watauga Lake in Johnson County.

In a Fall Field Day on Sept. 24, 93 species were recorded.—LEE R. HERNDON.

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Book Review

LOUISIANA BIRDS. By George H. Lowery, Jr. Louisiana State University Press, Baton Rouge. 580 p. $5.00.

"This is not a state bird book in the traditional sense." This sentence from the author's preface is very true.

"Louisiana Birds" is an introduction, first to bird study in general and second to the birds of the State; it is aimed at developing and encouraging the observation of bird life in this region. The first part of the book, 96 pages, describes Louisiana as a place for bird study, the history of ornithology in the State, the biology of birds, and ways of studying birds.

The bulk of the book consists of brief descriptions of the 377 species that have been recorded in Louisiana. Subspecies are very wisely omitted. The descriptions are simple and well-written statements of status, habitat and habits, and frequently of identifying field marks. Each species is figured by Robert E. Tucker, many in a style made familiar by Roger T. Peterson. Following this section is a twelve page chart showing the seasonal occurrence of birds in Louisiana, so that a reader can quickly determine the status of each species for any time of the year.

The annotated bibliography cites notes and books about Louisiana birds that have appeared since H. C. Oberholser completed his "Bird Life of Louisiana", which is a more technical work than the book being reviewed. There is a good index.

The illustrations are of several kinds. Besides the plates and figures done by Tucker, largely for identification purposes, there is a frontispiece in fine color, as are all the plates, and many unusually good photographs; most of these are by Allan Cruickshank and Samuel Grimes. All these combine with good printing to make an exceptionally handsome book.

With the help of his illustrators, George Lowery has succeeded in presenting a fine picture of Louisiana birds. Members of T.O.S. will be interested in this book because of the proximity of the two States and because Robert Tucker, the artist, came from Tennessee.—JAMES T. TANNER.

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A COMPARISON OF CEILOMETER MORTALITY AT KNOXVILLE AND NASHVILLE, TENNESSEE, IN 1951 AND 1954

By J. C. Howell

INTRODUCTION

In recent years many thousands of birds have died at airport ceilometers. It is now known that this mortality is more likely to occur in the fall than in the spring and that it occurs only when certain factors coincide; these are an overcast at 5000 feet or less, a wind with a velocity of at least five miles an hour from the north, and a large volume of migration. It might be added that these weather conditions usually are associated with a cold front.

Mrs. Amelia R. Laskey, James T. Tanner, and I recently studied a number of examples of ceilometer mortality (Howell, Laskey, and Tanner, 1954). We concluded that the probable cause of death was aerial collision between migrants followed by flying or falling against the ground. While we could not report an actual eyewitness account of aerial collision between migrants such collisions have since been witnessed by Capt. R. L. Edwards, at Maxwell Air Force Base, on the night of October 7-8, 1954.

This paper compares the birds killed at two airport ceilometers, one at Knoxville in East Tennessee, and the other at Nashville, 150 airline miles to the west. On the night of October 7-8, 1951, there were 1044 identifiable dead birds of 46 species at Knoxville and 448 dead birds of 40 species at Nashville (Howell and Tanner, 1951; and Laskey, 1951). On October 6-7, 1954, there were 267 identifiable dead birds of 26 species at Knoxville and 255 dead birds of 21 species at Nashville (Tanner, et al, 1954). These data permit us to compare the mortality at Knoxville with that of Nashville. And because the dates are almost the same, they also permit a comparison of the mortality in 1951 with that of 1954.

Table 1 provides us with the basis for the comparisons mentioned above. In the table appear the 15 species having the greatest total mortality at the two stations for the two years. The tabulations are divided into two halves. Each half is in turn divided into two equal parts. The parts of the first half are headed by 1951 and 1954 respectively, and beneath the year in each case is a separate heading for Knoxville and Nashville. The first half is devoted to a comparison of places. The second half of the table is headed by the places, Knoxville and Nashville, with subheadings in each case for the two years. The second half is devoted to a comparison of years.

In the case of the Ovenbird the first section of the first half of the table shows that in 1951 there were 387 individuals killed at Knox-

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ville and 57 at Nashville. A chi-square statistical test indicates that the number killed at Knoxville is very significantly greater; the double asterisk in the table indicates that the difference is so great as to be significant at the 1% level (less than one chance in a hundred that the difference is only an accidental difference). In the second section of the first half of the table we find that there was again in 1954 a very significantly greater number of Ovenbirds at Knoxville than at Nashville.

There were three species which were killed in significantly greater numbers at Knoxville than at Nashville in 1951 but not in 1954; these were the Bay-breasted, Blackburnian, and Hooded Warblers. At Knoxville in 1954, but not in 1951, there were significantly higher numbers killed of Red-eyed Vireo, Scarlet Tanager, and Olive-backed Thrush. One species, the Chestnut-sided Warbler, died in significantly greater numbers at Knoxville in 1951, but reversed its numerical status to appear in significantly higher numbers at Nashville in 1954.

At Nashville in both 1951 and 1954 significantly higher numbers of Tennessee and Magnolia Warblers and Indigo Buntings died than expected. Two species were killed in significantly greater numbers than expected at Nashville in 1951, but not in 1954; these were the Yellowthroat and the Philadelphia Vireo. No species occurred in the mortality in significantly greater numbers than expected at Nashville in 1954 but not in 1951 (except in the case of the Chestnut-sided Warbler cited above).

The second half of the table is arranged to show comparisons in mortality between years at Knoxville and Nashville. At Knoxville only the Ovenbird died in significantly higher numbers in 1951 than in 1954. At Knoxville in 1954 the Red-eyed Vireo and the Olive-backed Thrush suffered higher mortality than expected. No species that had an unexpectedly high mortality for either year at Knoxville also had an unexpectedly high mortality at Nashville on the same year.

At Nashville in 1951 unexpectedly high mortality effected the Yellowthroat and the Philadelphia Vireo, while in 1954 unexpectedly high mortality was suffered by the Magnolia, Chestnut-sided, Black-throated Green, and Black and White Warblers.

DISCUSSION

It might well be expected that a consistent pattern of ceilometer mortality would exist for each species at each place and on each year. Yet our results clearly show that this is not the case for at least certain species. The chi-square tests show that there are significant differences occurring between the migrating populations sampled by means of the mortalities taking place.

The commonest species killed at the Knoxville Airport ceilometer in both 1951 and 1954 is the Ovenbird. Yet on Knoxville bird lists for the same season the Ovenbird is much less common than many species which were represented in the mortality at a much lower level than the Ovenbird. The same situation exists at Nashville with respect to the Philadelphia Vireo. It is considered a rare species by field observers, yet it ranked fourth in the ceilometer mortality for 1951. In the cases of both of these species the disagreement regarding their correct numerical

TABLE 1

COMPARISON OF CEILOMETER MORTALITY AT KNOXVILLE AND NASHVILLE, 1951 AND 1954

Only the 15 species with the highest mortality are compared

If neither number is marked with an asterisk, there is no significant difference between the numbers killed at either place or in either year. Marked numbers are significantly higher, indicating a greater than chance mortality at one place as compared with the other. A single asterisk (*) indicates that the difference is significant at the 5% level as determined by a chi-square test; two asterisks (**) indicates significance at the 1% level.

	1951		1954		Knoxville		Nashville	
	Knox.	Nash.	Knox.	Nash.	1951	1954	1951	1954
Total birds killed	1044	448	267	255	1044	267	448	255
Ovenbird	**387	57	**81	37	*387	81	57	37
Tenn. Warbler	80	**100	25	**50	80	25	100	50
Magnolia Warbler	61	**71	15	**66	61	15	71	**66
Chestnut-sided Warbler	*90	22	18	*30	90	18	22	**30
Bay-breasted Warbler	*63	14	13	8	63	13	14	8
Red-eyed Vireo	42	11	**26	7	42	**26	11	7
Yellowthroat	32	**34	3	1	32	3	**34	1
Indigo Bunting	21	**26	4	*12	21	4	26	12
Scarlet Tanager	33	8	**14	1	33	14	8	1
Blackburnian Warbler	**39	3	7	4	39	7	3	4
Black-thr. Green Warbler	25	9	6	12	25	6	9	*12
Philadelphia Vireo	4	**37	5	3	4	5	**37	3
Hooded Warbler	**35	0	6	0	35	6	0	0
Blk. and White Warbler	14	3	8	13	14	8	3	**13
Olive-backed Thrush	17	4	**11	0	17	*11	4	0

status may be explained in terms of their inconspicuousness. The number of Ovenbirds and Philadelphia Vireos seen by the field observer is probably only a small per cent of those actually present. A comparison of the number of individuals recorded by the two methods might serve as a basis for a rating of the conspicuousness of a species.

In comparing ceilometer mortality and field trip data it is important to note that ceilometer mortality represents only those individuals which were actively migrating. This might explain in part why the Indigo Bunting, for example, appears less common in ceilometer mortality figures than in those of field trips. On field trips Indigo Buntings are counted whether they are birds resident in the area at the time or individuals which are transients.

If account is taken of the difference in conspicuousness among species and the fact that only the actively migrating individuals will occur in examples of ceilometer mortality, then it is at least possible that the birds killed at ceilometers constitute a random sample of the migratory bird population for each place and date. However, before we can state with confidence that the birds killed are a true random sample we need additional data. Perhaps there are some species which characteristically migrate above the floor of a cloud ceiling and thus escape the ceilometer beam. Possibly there are differences in the degree to which different species are attracted to a beam of light in the night sky. The size of the migrant may be important in determining the effect, and the likelihood, of an aerial collision.

That significant differences exist for a particular species in the size of the migratory population from one place to another and one year to the next indicate that at least on a population basis there is flexibility in the migration route used from one year to the next. As an example of this we may cite the Chestnut-sided Warbler which showed a significantly higher mortality at Knoxville in 1951 and yet had a significantly higher mortality at Nashville in 1954.

Only the 15 species having the highest mortality were carefully studied. There was little of an unexpected nature found during a brief consideration of the remaining 42 species killed at the ceilometers. It is of some interest, perhaps, that one specimen of Swainson's Warbler died at Knoxville although this species has never been reported in the field from this area. The relatively small numbers of the four fringillid species killed may perhaps be significant although some of them are commoner as migrants later in the fall. By contrast there were 27 species of parulids, 10 of which were listed among the 15 species having tthe highest mortality. No migratory species which might surely be expected at these places and dates was missing.

ACKNOWLEDGMENT

I am indebted to Mrs. Amelia R. Laskey and Mr. Albert Ganier for a carefully identified and complete list of the birds killed at Nashville. Dr. James T. Tanner and I are equally responsible for the identifications of the birds killed at Knoxville.

SUMMARY

From a study of the 15 species having the highest mortality among a group of 57 species killed at the Knoxville and Nashville ceilometers on October 7-8, 1951, and October 6-7, 1954, the following may be summarized:

1. The 15 species are: Ovenbird, Tennessee Warbler, Magnolia Warbler, Chestnut-sided Warbler, Bay-breasted Warbler, Red-eyed Vireo, Yellowthroat, Indigo Bunting, Scarlet Tanager, Blackburnian Warbler, Black-throated Green Warbler, Philadelphia Vireo, Hooded Warbler, Black and White Warbler, and Olive-backed Thrush.

2. Ceilometer mortality figures show that Knoxville and Nashville had significantly different migratory populations passing over them at the times concerned. There were more significant differences in popula-

tions between the two locations than between the two years, indicating that Knoxville and Nashville are on different migration routes.

3. The Ovenbird was significantly higher both years at Knoxville, and the Tennessee and Magnolia Warblers and Indigo Bunting were significantly higher both years at Nashville.

4. Only one species, the Chestnut-sided Warbler, experienced a significantly greater mortality at one place on one year and at the other place on the other year.

5. Eight species had significantly higher mortality than expected at one place or the other for one year, but not for both years.

6. No species that had a significantly high mortality for either year at Knoxville also had a significantly high mortality at Nashville on the same year.

7. Due to differences in conspicuousness and to other factors there was not close agreement as to order of abundance between the population of migrants as measured by ceilometer mortality figures and field trip lists.

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DEPARTMENT OF ZOOLOGY
UNIVERSITY OF TENNESSEE
KNOXVILLE

THE TREASURER'S HEADACHE

The Treasurer's headache can be cured by prompt payment of your dues for 1956. If you are a chapter member, chapter treasurers will collect your dues and send them in. If not, send them directly to the T. O. S. Treasurer, Rev. W. A. Hearn, 2752 Barron, Memphis 14, Tenn.

BINDING OF "THE MIGRANT"

This issue marks the end of another set of three volumes of THE MIGRANT, and it includes an index covering 1953-54-55. Many individuals like to have the twelve issues published during these three years bound together into one book. A title sheet to bind with the three volumes is being printed, and may be obtained upon request from James T. Tanner, Department of Zoology, University of Tennessee, Knoxville.

THE 1955 CHRISTMAS SEASON BIRD COUNTS

By T. O. S. Members

Three species were seen for the first time on Christmas bird counts in Tennessee; a Greater Scaup Duck and a Red-backed Sandpiper were found at Nashville, and a Lark Sparrow at Lebanon. Western Meadowlarks at Memphis and a Grasshopper Sparrow at Reelfoot Lake mark the second time for each of these species. Other unusual records are of Loon, Green Heron, Black-crowned Night Heron, Rough-legged Hawk, Ring-necked Pheasant, Short-eared Owl, and Evening Grosbeak. The total list includes 122 species, which ties the high record set last year. The count from Reelfoot Lake has both the largest number of species and of individuals.

Two flocks of Evening Grosbeaks were seen in the Great Smoky Mountains. Evening Grosbeaks were seen in several localities last winter and have also been reported in earlier years, but this is the first time that these northern birds have come this far south in two successive winters.

In the table and descriptions that follow, the localities are listed from west to east. The details of the separate counts are included under "Information on the Counts"; lack of space prohibited listing all of the participants. For additional information on records marked with an asterisk (*) in the table, see the paragraphs containing information on the locality.

MEMPHIS, TENN. (1953 areas generally; wooded bottomlands 25%, deciduous woodlands including city parks 20%, pastures, airfields, and farms 25%, suburban roadsides 25%, island willow thickets and river's edge 5%). Dec. 26, 1955; 6:45 a.m. to 5:15 p.m. Overcast a.m., partly cloudy p.m.; temp. 47 to 52 degrees; wind NE, 5-12 mph. 30 observers in 8 parties. Total party-hours 107 (82 on foot, 25 by car); total party-miles 229 (73 on foot, 156 by car). 81 species, about 1,210,459 individuals. Ben B. Coffey, Jr., (compiler), 672 Belvedere Blvd., Memphis 7.

An estimated 1,200,000 birds: Starlings, Red-winged Blackbirds, Purple Grackles, and Cowbirds, were seen at the roost on President Island. The Sharp-shinned Hawk was identified by Edwin Poole, the Rough-legged Hawks by Harry H. Wilcox and R. Demett Smith, the Catbird by S. J. Rini, the Blue-headed Vireo by Harry Landis, Jr., and Lula Coffey, and the LeConte's Sparrow and Smith's Longspur by Ben Coffey. Both Harris's Sparrow and Western Meadowlark were identified by two different parties.

REELFOOT LAKE, TENN. (same area as in past; lake 25%, marsh 8%, roadside 12%, fields, farms, and pasture 10%, cypress swamp 10%, wooded bottoms 25%, wooded hillsides 10%). Dec. 26, 1955; 6:45 a.m. to 5:15 p.m. Clear; temp. 45 to 53 degrees; wind NE, 20 to 25 mph. 11 observers in 4 parties. Total party-hours 40 (26 on foot, 4 by car, 10 by boat); total party-miles 147 (35 on foot, 80 by car, 32 by boat). 86 species estimated 4,530,426 individuals . Howard Barbig (compiler) Route 10, Memphis, Tenn.

The estimated numbers for each of the following species were: Canada Goose, 2,600; Mallard, 70,000; Gadwall, 2,050; Ring-necked Duck, 20,000; Canvasback, 1,202; Lesser Scaup, 4,041; Hooded Merganser, 2,002; Starling, 20,000; Red-winged Blackbird, 4 million; Purple Grackle, 400,000; Cowbird, 5,000.

This is the second appearance of the American Egret on the Reelfoot Christmas count, but the bird is being seen more frequently in December in West Tennessee and Eastern Arkansas. In 1951 we recorded 32 on Horseshoe Lake, Arkansas, and on Dec. 20, 1952, 29 were recorded at Reelfoot Lake. On Dec. 24, 1955, Mrs. Barbig and I saw two American Egrets in company with a Snowy Egret in the Census area. The yellow toes of the Snowy were observed at reasonably close range with a 30x telescope. Personnel of the Reelfoot Lake Waterfowl Refuge have had 19 small Canada Geese under observation for some time; they have been tentatively identified as the subspecies called Richardson's Canada Goose. Two of these were seen on the census day. The Grasshopper Sparrow was observed by Mary Lou Cypert and the Chipping Sparrows by Hunter Hancock and Charles McPherson. Species seen in the area within the Count period but missed on Dec. 26 were, besides the Snowy Egret, Turkey Vulture, 1; Pipit, 8; Rusty Blackbird, 29.—HOWARD BARBIG.

JOHNSONVILLE, TENN. (7½ mile radius centering at the Johnsonville Steam Plant, including parts of the Tennessee National Wildlife Refuge, the Duck River dewatering area, portions of Kentucky Lake, and extending west to Camden; river bottom farm land 50%, marshes 10%, open water and shoreline 20%, urban 5%, highways 5%, brush land 5%, hardwood bordered sloughs 5%). January 2, 1956; 7 a.m. to 5 p.m. Clear; temp. 44 to 60 degrees; wind SW to NW, 0 to 20 mph; ground comparatively dry, marshes mostly dry. 23 observers in 5 parties. Total party-hours 36 (27 on foot, 8 by car, 1 by plane); total party miles 250 (20 on foot, 160 by car, 70 by plane. 73 species; about 70,398 individuals. Eugene Cypert (compiler), Paris, Tenn.

The estimated numbers of the more abundant species were: Canada Goose, 2,550; Mallard, 45,000; Gadwall, 1,000; Pintail, 2,000; Ring-billed Gull, 1,000; American Crow, 5,000; Red-winged Blackbird 7,000; Purple Grackle, 2,000. The Lincoln's Sparrow was identified by Howard Barbig.

NASHVILLE, TENN. (same area as covered in previous years). Dec. 26, 1955; 6:30 a.m. to 5:30 p.m. Weather "perfect". 27 observers in 9 parties. 77 species, about 10,800 individuals. Albert F. Ganier (compiler), 2112 Woodlawn Drive, Nashville 12.

The Greater Scaup Duck was identified by John Ogden and Mrs. Bell on Bush's Lake at a distance of 40 feet and apart from about 90 other ducks. The Ring-necked Pheasant was a wild bird. The Red-backed Sandpiper has been present since October. The number of Starlings reported was 6,700.

LEBANON, TENN. (radius of 6 miles from Lebanon). Dec. 31, 1955; 6 a.m. to 4:30 p.m. Fair; temp. 20 to 45 degrees; wind N. Ten observers. 51 species, 1,280 individuals. Dixon Merritt (compiler), Lebanon. The Green Heron was reported by Miss Martha Campbell and her sister; they say that the bird had been on and around a pond on the Campbell farm four miles west of Lebanon all winter, but has apparently gone since the count. Mr. Merritt writes, "I found the Lark Sparrow west of my home toward the Gladeville area where Lark Sparrows have been unusually numerous in summer for several years. I was watching a flock of Purple Finches when I spotted the sparrows. I had a close view of him and was able clearly to observe the tail pattern, the breast spot, and the ear patches."

CHATTANOOGA, TENN. (Same area as in previous years). Dec. 31, 1955; 7:45 a.m. to 4:45 p.m. Clear; temp. 20 to 45 degrees; wind 0-3 mph. 9 observers in 3 parties. Total party-hours 18 (14 on foot, 4 by car); total party-miles 124 (8 on foot, 116 by car). 61 species, about 2,500 individuals. Mrs. Eugene M. West (compiler), 1625 S. Clayton Ave., S. E., Chattanooga 11.

GREAT SMOKY MOUNTAINS NATIONAL PARK, TENN.-N. C. (same as 1937 and subsequent years). Dec. 26, 1955; 6:30 a.m. to 5:30 p.m. Mostly overcast; temp. 32 to 48 degrees; wind light, NE, under 10 mph; ground bare in lowlands, some snow in shade at high altitudes. 27 observers in 10 parties. Total party-hours 80 (70 on foot, 10 by car); total party-miles 188 (81 on foot, 107 by car). 56 species, 3,040 individuals. Arthur Stupka (compiler), National Park Service, Gatlinburg, Tenn.

A total of 251 Black-capped and Carolina Chickadees was reported. The Catbird, reported for the first time on a Christmas Count in this area, was observed at close range by Dorothy MacLean; it has been present in Gatlinburg for several weeks previous to the Count. A flock of 45 Evening Grosbeaks was observed by Stupka four miles east of Gatlinburg and was approached to within 20 feet while feeding on sumac fruits; Stupka observed another flock of 30 birds in red spruce and yellow birch trees at Collins Gap, elevation 5,700 feet.

GREENEVILLE, TENN. (Same area as in previous years). Dec. 27, 1955; 7:15 a.m. to 5 p.m. Clear; temp. 31 to 45 degrees; wind 2 to 10 mph. 7 observers in 5 parties. Total party-hours 30, total party-miles 47 (10 on foot, 37 by car). 57 species, about 5,493 individuals. Mrs. Richard Nevius (compiler), Route 1, Greeneville. The number of Crows reported was about 2,000, of Starlings about 1,800.

KINGSPORT, TENN. (Same area as last year). Dec. 26, 1955; 7:15 a.m. to 5 p.m. Cloudy and windy; temp. 30 to 50 degrees. 18 observers in 10 parties. Total party-hours 50. 51 species, 7,580 individuals. Thomas W. Finucane (compiler), 1434 Watauga Street, Kingsport. The Herring Gulls were observed by Ann Switzer, the Palm Warblers by George Rodgers, who observed their tail-wagging, etc. An estimated 1,000 Starlings were reported.

ELIZABETHTON, TENN. (Same area as in previous years). Jan. 1, 1956; 5 a.m. to 5:30 p.m. Clear; temp. 20 to 45 degrees; wind 0 to 5 mph. 8 observers in 6 parties. Total party-hours 47 (28 on foot, 19 by car); total party-miles 187 (28 on foot, 159 by car). Total species 55, about 3,053 individuals. Lee R. Herndon (compiler), 1533 Burgie Place, Elizabethton. Three new species were added to the Christmas Count list for this area: Common Loon, Great Blue Heron, Wood Duck. They have all been observed before at this season of the year.

	Memphis	Reelfoot	Johnsonville	Nashville	Lebanon	Chattanooga	Great Smokies	Greeneville	Kingsport	Elizabethton
Common Loon	—	—	—	—	—	1	—	—	—	*2
Horned Grebe	—	—	—	—	—	1	—	—	—	2
Pied-bl. Grebe	2	1	3	2	—	—	—	—	1	8
Db.-c. Cormorant	—	29	500	—	—	—	—	—	—	—
Grt. Blue Heron	2	57	299	2	—	—	1	2	1	*1
American Egret	—	*1	—	—	—	—	—	—	—	—
Green Heron	—	—	—	—	*1	—	—	—	—	—
Black-cr. Nt. Heron	—	—	—	1	—	—	—	—	—	—
Canada Goose	40	*	*	—	—	8	—	—	3	—
Blue Goose	—	—	11	—	—	—	—	—	—	—
Mallard	25	*	*	38	—	200	—	57	402	3
Black Duck	—	340	450	3	—	150	1	80	50	2
Gadwall	—	*	*	—	—	—	—	—	—	—
Baldpate	—	212	90	4	—	—	—	—	—	—
Pintail	15	24	*	—	—	—	—	2	—	—
Grn-wg. Teal	—	24	4	1	—	—	—	—	—	—
Blue-w. Teal	—	1	—	—	—	—	—	—	—	—
Shoveller	—	781	—	—	—	—	—	—	—	—
Wood Duck	—	3	3	—	—	—	—	—	1	*1
Redhead Duck	—	3	—	—	—	—	—	—	—	—
Ring-nk. Duck	2	*	12	62	—	300	—	—	—	—
Canvasback	2	*	—	20	—	—	—	—	4	—
Grt. Scaup Duck	—	—	—	*1	—	—	—	—	—	—
Lsr. Scaup Duck	180	*	—	22	—	—	—	—	48	2
Am. Golden-eye	—	18	—	7	—	—	—	—	—	1
Bufflehead	—	2	7	—	—	—	—	—	—	9
Ruddy Duck	—	41	—	—	—	—	—	—	—	—
Hood. Merganser	—	*	16	2	—	1	—	—	—	—
Amer. Merganser	—	—	—	1	—	—	—	—	—	—
Turkey Vulture	3	—	—	—	—	—	6	17	6	1
Black Vulture	6	20	2	11	6	—	—	5	8	—
Sharp-sh. Hawk	*1	—	—	—	—	—	—	—	—	—
Cooper's Hawk	3	2	—	1	1	—	2	3	1	1
Red-tld. Hawk	27	11	29	8	3	4	1	1	—	1
Red-shld. Hawk	9	1	3	—	—	—	—	—	—	—
Rgh-legd. Hawk	*2	—	—	—	—	—	—	—	—	—
Bald Eagle	—	19	13	—	—	—	—	—	—	—
Marsh Hawk	4	4	21	5	—	1	—	1	—	—
Duck Hawk	—	1	—	—	—	—	1	—	—	—
Sparrow Hawk	40	6	6	13	2	9	2	9	4	6
Ruffed Grouse	—	—	—	—	—	—	5	—	—	—
Bob-white	154	1	20	24	—	15	8	9	—	—

	Memphis	Reelfoot	Johnsonville	Nashville	Lebanon	Chattanooga	Great Smokies	Greeneville	Kingsport	Elizabethton
Rng-n. Pheasant	------	------	------	*1	------	------	------	------	------	------
Coot	2	150	------	------	------	------	------	------	------	------
Killdeer	79	8	40	80	18	53	40	14	18	8
Wilson's Snipe	------	------	------	2	------	------	------	1	------	------
Red-b. Sandpiper	------	------	------	*1	------	------	------	------	------	------
Herring Gull	2	2	9	------	------	3	------	------	*2	------
Ring-bil. Gull	250	141	*	1	------	50	------	------	------	------
Mourning Dove	266	34	207	100	30	71	45	144	91	179
Screech Owl	1	------	1	------	1	1	------	------	------	------
Gr. Horned Owl	1	3	------	2	2	------	1	------	------	------
Barred Owl	2	3	1	2	------	------	------	------	------	------
Sht-eared Owl	------	------	------	1	------	------	------	------	------	------
Blt. Kingfisher	12	7	4	10	------	3	7	2	4	8
Flicker	152	35	14	34	15	6	4	16	7	18
Pil. Woodpecker	1	6	3	16	12	1	14	2	4	7
Red-bel. Wdpkr.	72	39	19	28	14	4	------	6	3	------
Red-hd. Wdpkr.	88	2	1	------	------	1	------	6	1	------
Yl-bl. Sapsucker	11	3	6	2	5	1	4	2	2	4
Hr. Woodpecker	20	2	1	9	9	1	9	1	------	3
Dn. Woodpecker	74	29	16	98	19	9	34	14	14	26
Phoebe	2	2	1	2	3	2	10	6	8	3
Horned Lark	392	2	------	190	30	------	65	35	------	------
Blue Jay	534	38	47	22	6	57	20	50	35	50
Raven	------	------	------	------	------	------	5	------	------	------
Amer. Crow	76	210	*	280	97	65	246	*	104	369
Crln. Chickadee	186	63	59	196	21	41	*	108	150	47
Tuft. Titmouse	122	41	30	134	41	48	61	45	58	45
Wh-b. Nuthatch	3	2	------	1	2	11	2	3	4	------
Rd-b. Nuthatch	------	------	------	------	------	------	77	------	------	------
Brown Creeper	12	5	3	12	7	1	16	------	1	4
Winter Wren	9	3	1	6	3	------	10	3	------	1
Bewick's Wren	1	2	7	17	22	1	------	1	------	------
Carolina Wren	138	29	30	81	17	12	40	66	33	49
Mockingbird	166	13	30	80	34	35	12	47	35	55
Catbird	*1	------	------	------	------	------	*1	------	------	------
Brn. Thrasher	42	1	------	------	------	1	------	------	------	------
Robin	975	8	21	143	63	6	425	18	18	52
Hermit Thrush	25	------	3	5	1	------	29	3	2	3
Bluebird	32	25	92	184	22	28	83	36	79	56
Gld-cr. Kinglet	59	14	8	9	1	8	73	4	------	6
Rub-cr. Kinglet	9	1	2	3	1	3	3	------	------	4
Pipit	------	------	8	9	------	------	------	------	------	------
Cedar Waxwing	98	------	20	128	1	10	20	50	1	300

	Memphis	Reelfoot	Johnsonville	Nashville	Lebanon	Chattanooga	Great Smokies	Greeneville	Kingsport	Elizabethton
Lgr-hd. Shrike	40	23	10	10	6	6	3	6	-----	9
Starling	*	*	830	*	204	160	89	*	*	600
Blue-hd. Vireo	*1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Myrtle Warbler	118	3	2	49	1	3	28	27	51	162
Pine Warbler	-----	-----	-----	-----	-----	1	-----	-----	3	1
Palm Warbler	-----	-----	-----	3	-----	-----	-----	-----	*3	-----
House Sparrow	544	20	42	160	147	15	83	100	250	251
E. Meadowlark	395	19	132	147	21	237	45	53	9	78
W. Meadowlark	*3	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rd-w. Blackbird	*	*	*	47	-----	-----	-----	8	-----	-----
Rusty Blackbird	18	-----	-----	-----	-----	310	-----	86	-----	-----
Purple Grackle	*	*	*	17	-----	3	-----	2	60	-----
Cowbird	*	*	-----	18	10	-----	-----	-----	-----	-----
Cardinal	700	269	211	324	137	72	93	118	160	154
Even. Grosbeak	-----	-----	-----	-----	-----	-----	*75	-----	-----	-----
Purple Finch	76	25	14	11	41	27	21	13	4	20
Pine Siskin	-----	-----	-----	2	-----	-----	346	2	-----	-----
Goldfinch	161	46	255	410	15	69	144	154	111	80
Red Crossbill	-----	-----	-----	-----	-----	-----	57	-----	-----	-----
Rd-ey. Towhee	136	1	12	41	23	42	19	16	21	12
Savan. Sparrow	55	2	39	5	-----	20	-----	-----	-----	1
Grshp. Sparrow	-----	*1	-----	-----	-----	-----	-----	-----	-----	-----
Lecont. Sparrow	*4	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lark Sparrow	-----	-----	-----	-----	*1	-----	-----	-----	-----	-----
Sl-cl. Junco	750	92	302	324	78	134	200	55	61	144
Tree Sparrow	-----	1	-----	-----	2	-----	-----	-----	-----	-----
Chip. Sparrow	-----	*3	-----	-----	-----	1	-----	-----	-----	-----
Field Sparrow	163	23	114	43	43	37	70	43	33	51
Harris Sparrow	*6	-----	-----	-----	-----	-----	-----	-----	-----	-----
Wh-cr. Sparrow	142	2	62	87	4	2	-----	39	10	16
Wh-thr. Sparrow	*	183	106	140	5	135	62	60	76	56
Fox Sparrow	76	5	18	6	9	1	1	1	-----	4
Lincn. Sparrow	-----	-----	*1	-----	-----	-----	-----	-----	-----	-----
Swamp Sparrow	122	68	303	53	-----	4	-----	-----	-----	1
Song Sparrow	474	40	222	88	23	46	70	37	25	76
Lapl. Longspur	99	-----	-----	-----	-----	-----	-----	-----	-----	-----
Smith Longspur	*1	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Species	81	86	73	77	51	61	56	57	51	55

The Round Table

SOME RECORDS FROM THE MEMPHIS AREA — The following birds have been recorded by me along the Mississippi River near Memphis:

BONAPARTE'S GULL—Six immature and two adults in winter plumage were first observed at close range on November 19. They possibly arrived with the severe cold wave on November 17. On November 27 the temperature dropped to 15 degrees. My last of these gulls was one immature bird seen on December 2.

SHORT-EARED OWL—My only record came on November 26, but others saw this owl in October at the blackbird roost.

LECONTE'S SPARROW—One individual was at the blackbird roost at dusk on November 27.—OLIVER F. IRWIN, 1798 Glenview Avenue, Memphis.

———o———

A LATE NEST OF YELLOW-BILLED CUCKOO.—On August 22, 1954, a nest containing two eggs was found at "Rivercliff" on Stones River near Nashville. It was seven feet up in a forsythia bush growing in the garden of my summer cottage. The incubating bird flushed when I approached to within 10 feet. On August 30, the bird was still on the nest and I did not disturb her. A very severe drouth had prevailed and the surrounding woods were exceedingly dry. On Sept. 6, when the thermometer registered 104.8 F., I again visited the nest. There were one small dead nestling and a live one about 5 days old. The latter had its head and neck stretched upward to full extent. The dry conditions still prevailed and the parents probably had difficulty in finding food. I was away attending the A.O.U. meeting the following week and on my return the live young one was not present.—ALBERT F. GANIER, Nashville 12, Tenn.

———o———

A CARDINAL'S WINTER ROOST — On the Vanderbilt campus, Nashville, on the night of December 13, 1954, I observed a male Cardinal roosting on the inside of a lighted porch of the old residence at the south end of the campus. It had been roosting there for some time, so I was told by Mr. Ed Bryan who lived in the house. The roosting perch was the top of the moulding over the arched entrance, which stands eight feet from the front door. A ceiling light, a bulb suspended from the high ceiling, burned four feet away from the roosting bird and the white ceiling above made the enclosed porch space as light as day and no doubt also, a bit warmer at night. Mr. Bryan leaves the light on all night, and he told me that the bird sometimes fluttered against the bulb as though to warm itself. On several winters in the past I have had one or more Cardinals roosting in my garage, on electric wires near the peak of the roof.—ALBERT F. GANIER, Nashville 12, Tenn.

CRESTED FLYCATCHER EVICTS STARLING.—On June 10, a pair of Crested Flycatchers finally decided to nest in the cavity of a locust tree in my back yard, but a Starling that had like intent flew in and refused to be evicted. Sizing up the situation, I trimmed a piece of old galvanized iron to fit over the opening and nailed it on after cutting a hole of a size that I thought would admit a Flycatcher but exclude the larger Starling. The next day the Starling was seen to try entry but without success, and a few days later one of the Flycatchers went in to inspect. I felt the problem had been solved and made no examination for the time being. A week later, both Flycatchers were in the tree making considerable complaint and watching them I saw one go in. It reappeared at the hole, flew downward at an angle and dropped from its beak a Starling's egg as it neared the grass, then flew on into a tree. When they left, I picked up the egg finding it fresh and unbroken. Examining the nest cavity, I found no more eggs and only a few straws that had been brought in by the Starling. Considering the three-quarter inch diameter of the egg, it is remarkable that the Flycatcher could have carried it unbroken in its beak. The Flycatchers visited the site frequently for a week or so longer but did not nest, nor did the Starlings try.—ALBERT F. GANIER, Nashville 12, Tenn.

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News and Notes

CELEBRATION OF FORTIETH ANNIVERSARY OF T. O. S.

The Nashville Chapter observed the fortieth anniversary of the Tennessee Ornithological Society with a special program on October 10, 1955, honoring the founders of the society and some of the early members. Three living founders were present: Albert F. Ganier, George R. Mayfield, and Dixon Merritt. A son of A. C. Webb, another founder now deceased, was also present, Dr. Hanor A. Webb.

Vernon Sharp, one of the early members, described some of the early history of the society and introduced the individuals to be honored with brief accounts of their accomplishments. Each of the three living founders gave short talks to the club, and each received a badge. All of the early members present at the meeting were given badges to wear that told the number of years each had belonged to the T. O. S. After the meeting refreshments were served to the 61 people that attended.—JOHN OGDEN and EDWIN D. SCHREIBER.

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FALL FIELD DAY AT ELIZABETHTON

The Elizabethton Chapter, T. O. S., Roby D. May, Jr., President, held a fall field day on October 9 which was attended by birders from Kingsport, Knoxville, Maryville, Bristol, Johnson City, Greeneville and Oak Ridge.

Field trips led by members of the Elizabethton club left the covered bridge in Elizabethton each hour from 7 a.m. to noon. Some of the areas covered were Roan Mountain, Backwoods Lake, Wilbur Lake, County Farm, Roan Creek and Watauga Lake.

At 1:30 the entire group of more than sixty met for lunch at Watauga Overlook, a picnic area where there was a magnificent view of Watauga Lake and the surrounding mountains wearing their brilliant fall dress. Each person brought his own lunch and the Elizabethton Chapter provided coffee, soft drinks and cookies. After lunch a bird list of 80 species was compiled.

Members of the Elizabethton club consider this a successful and very enjoyable activity, and plan to make this an annual event. Enthusiasm and fellowship are contagious, and the local group feel much enriched by a day of sharing a common interest with members of other clubs. MRS. D. E. BASHOR, Publicity Chairman.

———o———

OUR NEW EDITOR

Dr. Lee R. Herndon, of Elizabethton, will begin editing THE MIGRANT with the March 1956 issue. Dr. Herndon has long been active in the T. O. S. He was president of the Society from July 1946 thru June 1949. He was active in organizing chapters in Elizabethton, Greeneville, Kingsport, and Bristol. Recently he has served as chairman of the Society's Finance Committee.

Dr. Herndon is a chemist, his Ph.D. degree being in that field. At present he is head of the chemistry laboratory of the North American Rayon Company at Elizabethton. His hobby of bird study began before coming to Tennessee, and he did a lot of field work around Buffalo, N. Y., when living there. Most of his field work in this State has been in the northeastern part. Largely as a result of this he published in THE MIGRANT for December 1950 an annotated list, "Birds of Carter County." He has prepared other short articles or notes and has been a regular contributor to "The Season." Mrs. Herndon is also an active bird student; she has held different offices in the Elizabethton Chapter of the T. O. S., and despite the many demands of their large family, has taken part in many field trips.

Dr. Herndon's address is 1533 Burgie Place, Elizabethton, Tennessee. All material for publication in THE MIGRANT should from now on be sent to him.—J. T. T.

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Knoxville, Tennessee

IN RETROSPECT

"To record and encourage the study of birds in Tennessee," the purpose of THE MIGRANT, has been my aim in editing our journal during the past nine years. To this end, many articles, reports, and notes have been published. Some of these stand out in my memory because of their thoroughness, or the cooperative effort behind their preparation, or some other features, but it would be pointless to try to choose the more important or more valuable. All of them have contributed something of worth.

Members of T. O. S. have benefited most from all the work that has gone into THE MIGRANT, for they all have been helped in learning more about the birds of our State. The more advanced bird students have been provided with an incentive for undertaking and completing special projects, in that the results of their work could be published and made available to others. But the value of THE MIGRANT extends far beyond this, for it is wanted and received by a great many individuals and libraries outside of Tennessee.

THE MIGRANT stands in the front rank of similar ornithological journals. Common sense tells one that the worth of anything written depends on what is written, and that depends on the author. The credit for the excellence of THE MIGRANT must go to its many contributors. They also deserve my thanks for their cooperation in preparing material, frequently under pressure when the deadline was near. The names of all of these people will be found in THE MIGRANT'S printed pages.

I have enjoyed the associations and friendships formed in connection with this work and have profited greatly from the nature of the work itself for it has brought to me many and varied bits of knowledge about birds and their lives. I hope that the new editor, Dr. Lee R. Herndon, will, with the cooperation of all T. O. S. members, likewise enjoy his editorship.—JAMES T. TANNER.

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Vireo, Yellow-throated—1953: 38, 56; 1954: 31, 67; 1955: 30, 51.

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Vulture, Turkey—1953: 14, 29-30, 36, 76, 77; 1954: 26, 28, 77; 1955: 16, 27, 59, 61.

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Warbler, Black-poll — 1953: 38; 1954: 27, 32, 54; 1955: 31.

Warbler, Black-throated Blue — 1953: 38; 1954: 31, 55, 68; 1955: 31, 38, 39.

Warbler, Black-throated Green — 1953: 9, 38, 57; 1954: 31, 53, 68; 1955: 31, 38, 48, 50, 51, 53-57.

Warbler, Blackburnian—1953: 17, 38, 57, 60; 1954: 31, 53, 68; 1955: 31, 39, 48, 50, 51, 53-57.

Warbler, Blue-winged — 1953: 35, 38; 1954: 31, 43, 51; 1955: 30.

Warbler, Canada—1953: 39, 57, 59; 1954: 32, 54, 55, 68; 1955: 31, 39, 40, 48, 51.

Warbler, Cape May—1953: 38, 55, 60; 1954: 31, 55, 68; 1955: 31, 51.

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Warbler, Chestnut-sided—1953: 17, 38, 57; 1954: 11, 12, 32, 53, 55, 60, 67, 68; 1955: 31, 39, 48, 51, 53-57.

Warbler, Connecticut—1954: 52, 54.

Warbler, Golden-winged—1953: 38, 55; 1954: 31, 53, 54; 1955: 48.

Warbler, Hooded—1953: 39; 1954: 32, 44, 53, 68; 1955: 31, 39, 40, 53-57.

Warbler, Kentucky — 1953: 38; 1954: 32, 43, 53, 68; 1955: 31.

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Warbler, Myrtle — 1953: 38, 78; 1954: 11, 16, 31, 78; 1955: 16, 25, 31, 50, 63.

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Warbler, Palm—1953: 38; 1954: 32, 53, 68; 1955: 31, 46, 51, 60, 63.

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Warbler, Pine—1953: 15, 16, 38, 78, 80; 1954: 32, 34, 55, 68, 76, 78; 1955: 31, 63.

Warbler, Prairie — 1953: 38, 55; 1954: 32, 43, 54; 1955: 31.

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Warbler, Swainson's—1953: 34, 38, 55; 1954: 31, 44, 64, 68; 1955: 30, 47.

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Warbler, Tennessee—1953: 38, 42, 57; 1954: 11, 31, 60, 67, 68; 1955: 30, 46, 50, 51, 53-57.

Warbler, Wilson's—1953: 17, 39, 55, 57, 75; 1954: 32, 53, 68; 1955: 31, 48, 50.

Warbler, Worm-eating — 1953; 38, 55, 56, 58; 1954: 31, 43, 51, 54, 68; 1955: 30, 51.

Warbler, Yellow — 1953: 38, 57; 1954: 27, 31, 43; 1955: 31, 50.

Warbler, Yellow-throated — 1953: 22-25, 38; 1954: 31, 43; 1955: 31, 50.

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Waterthrush, Louisiana—1953: 15, 35, 38; 1954: 26, 27, 32, 43, 53, 73, 75, 78; 1955: 31, 39, 50.

Waterthrush, Northern—1953: 34, 38, 57; 1954: 27, 32, 53, 54, 68; 1955: 26, 31, 50.

Waxwing, Cedar—1953: 14, 18, 32, 33, 35, 38, 57, 78; 1954: 17, 31, 55, 74, 78; 1955: 16, 30, 38, 62.

Whip-Poor-Will — 1953: 36, 55; 1954: 27, 29, 34, 55; 1955: 29, 47.

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Woodpecker, Downy—1953: 37, 78, 83; 1954: 30, 77; 1955: 16, 29, 38, 62.

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